INTERNATIONAL BODY PSYCHOTHERAPY JOURNAL

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The Art and Science of Somatic Practice

PRENATAL AND PERINATAL SOMATICS

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EDITORIAL

SPECIAL SECTION ■ PRENATAL & PERINATAL SOMATICS

The Foundational Place of Prenatal and Perinatal Psychology in Somatic Psychotherapy

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Assistant Editor

How far back can we remember our beginnings? Prenatal and perinatal somatics guide us to the true origins of our developmental history, emphasizing the importance of the truth we know: that the shaping of our embodied selves begins not at birth, but long before – in the womb, through intergenerational imprints carried from conception, and through the earliest relational and physiological experiences of life.

In this issue, we invited Kate White to be our guest editor. Her approach to prenatal and perinatal somatics is not only courageous but also profoundly integrative. White stands at the intersection of multiple paradigms – body psychotherapy, trauma studies, attachment theory, energetic work, and perinatal psychology – bringing them into dialogue in ways that significantly reshape our understanding of early life experiences. In her editorial, *A Room of Our Own in the Somatics House*, she effectively claims space for prenatal and perinatal somatics within the broader somatic and body psychotherapy field. The metaphor of a "room" is fitting: it acknowledges both the historical exclusion of this work, and the necessity of its presence as a core element of the somatic field.

Pre- and perinatal somatics reminds us that our primary memories are bodily memories. The work of pioneers like Ray Castellino and William Emerson demonstrates that implicit, preverbal experiences are not only imprinted but also have a profound impact on health, self-regulation, and relational patterns throughout our lives. In this way, focusing on the pre- and perinatal realm is at the core of integral thinking in somatics. Therefore, the integration of perinatal psychology within somatics is not merely an "addition" to the field; it is an essential root system that nourishes and sustains our understanding of embodiment. Engaging in body psychotherapy without considering these earliest lay-

ers of experience is akin to starting the story in the middle, overlooking the foundational imprints that shape human resilience, adaptation, and suffering.

Perinatal psychology has often been marginalized in mainstream psychological discourse, not because its findings are weak but because they challenge deeply ingrained assumptions. The field dares to ask difficult questions: How do the experiences of gestation, birth, and early bonding impact psychological development? What is the role of transgenerational trauma in shaping our embodied selves? Can we access, integrate, and transform early life's nonverbal, preverbal, and implicit experiences?

Engaging with these questions requires more than intellectual curiosity – it calls for courage, patience, and a willingness to step into the unknown. Integrating prenatal and perinatal psychology into the broader landscape of psychology and psychotherapy means challenging long-standing paradigms and trusting in the wisdom of embodied experience – even when, or perhaps especially when, it defies conventional understanding. Exploring these earliest layers of human development demands boldness and persistence, as the truths uncovered here do not always reveal themselves quickly or easily.

Just as deep healing work requires attunement, time, and a capacity to tolerate uncertainty, so does bringing this field into wider recognition. In both cases, transformation is not immediate; it unfolds gradually, through sustained inquiry, openness, and a deep listening to what has long been overlooked. At first, what emerges may not resemble any answer one has encountered before, but that is not a reason to dismiss it. Instead, it is an invitation to listen more deeply, and to attune to a new language of knowing. And just as true healing involves integrating fragmented parts of the self, the integration of pre- and perinatal perspectives calls for weaving these foundational experiences back into the larger narrative of human development, restoring a sense of wholeness to our understanding of psychology and embodiment.

One critical aspect of this special issue is the recognition that prenatal and perinatal psychology is inherently a feminist issue. The erasure of the maternal and perinatal realms from psychology and medicine reflects broader patterns of devaluing reproductive labor, caregiving, and embodied maternal knowledge. Just as feminist critiques have challenged the exclusion of women's experiences from psychoanalysis, perinatal psychology challenges the exclusion of birth, gestation, and the maternal-infant dyad from our frameworks of mental and emotional health.

Kate White's editorial guidance highlights this erasure and offers a reparative vision – one in which the pre- and perinatal field is no longer sidelined, but fully integrated into somatic psychotherapy. This work is not only about honoring the experiences of birthing parents and infants; it is also about reclaiming a more complete and embodied understanding of human development.

To engage in this work is to stand in the discomfort of what has yet to be fully understood, and to remain steadfast in the search for answers.

In This Issue…

Our guest editor for this issue is Kate White, the Founding Director of Education at the Association for Prenatal and Perinatal Psychology and Health (APPPAH), and the Founder and Director of the Center for Prenatal and Perinatal Programs.

This issue's focus on prenatal and perinatal somatics makes clear that this area of somatics is not merely a niche within body psychotherapy; it serves as the foundation upon which all somatic inquiry is built. Prenatal and perinatal somatics is an emerging field that stems from the study of birth psychology. The articles in this issue reflect the richness and depth of contemporary perinatal psychology in the context of body psychotherapy. They provide both theoretical expansion and clinical application, demonstrating that engaging with the body involves connecting with the entire narrative of the body, from preconception to adulthood. Kate's guidance as guest editor embodies a courageous inquiry into our earliest imprints.

Blending scientific and deeply humanistic sensitivity, Kate has invited contributors who look at the complexities of early trauma, the medicalization of birth, and the profound ways in which social structures shape perinatal experiences. She introduces our pre- and perinatal exploration with a moving editorial, ***A Room of One's Own in the Somatics House***, along with a description of the emergence of prenatal and perinatal somatics as a field of practice, titled ***Prenatal and Perinatal Somatics: Eight Practice Principles and New Horizons for Integrating Earliest Trauma***. In this work, she suggests new possibilities for supporting the vital and vulnerable prenatal and perinatal periods. ***The Origins and Growth of Prenatal and Perinatal Psychology in North America: A Conversation with Thomas Verny*** offers a warm, inspirational introduction for readers new to the subject, as well as a homecoming for experienced enthusiasts of healing early trauma. This piece covers a broad range of topics, from the early days of prenatal and perinatal psychology in North America and the publication of *The Secret Life of the Unborn Child* to discussions about cellular consciousness and Verny's most recent book, *The Embodied Mind*.

Nesting as Imprint of Bonding and Attachment: A Phenomenological Exploration of Healing Gestures in Prenatal and Birth Process by *Jaap van der Wal* and *Kate White* examines the phenomenology of the human embryo's nesting within the uterine lining, analyzing this gesture both morphologically and embryologically. Kate adds a focus on how practitioners can utilize nesting to address earliest trauma.

Womb Shadows: Shining Light on Our Forgotten Prenatal Experience by *Cherionna Menzam-Sills* reviews prenatal awareness and memory, as well as the potential for providing therapy for what Little Ones needed in the womb. She proposes that the experiences of babies in the womb are so overlooked that parenting is often believed to begin at birth, which leads to a rarely acknowledged prenatal experience that tends to become unconscious shadow material.

In ***Trauma, Memory, and Perception***, *John Wilks* explores the significance of sensory experiences in babies and prenates, challenging the assumption that their limited experiences render them incapable of interpreting and contextualizing sensations. The article argues that even seemingly simple sensory inputs can hold profound meanings, influencing an infant's stress response and their relationship to trauma later in life. ***The Role of Connective Tissue in Early Disturbances*** by *Gloria Quattrini* reviews the work of Functional Analysis developed by Will Davis, which combines gentle touch with verbal communication. Because a fetus relies exclusively on connective tissue for protection during the first months of development, Functional Analysis emphasizes connective tissue dysfunction as the organism's primary response to stress.

Pre- and Perinatal Influences on Adult Sexual Intimacy: How the Birth Process Shapes Our Sexual Self by *Sarah Dorothee Theismann* posits that the pre- and perinatal phases of life serve as a relationship learning lab. Her paper explores the potential influences of the birth process on the development of the sexual self, beginning with a discussion of the similarities between birth and sexuality. It examines how birth may shape our access to sexuality as a natural force, and how various interventions can influence our sexual response cycle and the states of consciousness we experience during sexual encounters.

The article by *Klaus Evertz*, ***Feeling the World Anew: Transgenerational Systemic and Prenatal Integrative Art and Body Psychotherapy***, builds on the understanding that psychological and somatic illnesses in childhood, adolescence, and adulthood can increasingly be attributed, etiologically, to epigenetics and the psychological circumstances of pregnancy. This insight forms the basis for a bio-psycho-social medicine of the future, and thus establishes a new theoretical foundation for comprehensive psychosomatics.

In our RESEARCH section, ***The Relationship Between Perinatal Stress and Newborn Food Allergy: A Somatic Experiencing Perspective*** by *Sinem Özen Canbolat*, *İlayda Ulubaş*, and *Ezgi Yıldız* is a pioneering effort to clarify the largely uncharted specific mechanisms by which maternal prenatal stress contributes to food allergies in newborns. It builds on the premise that many women experience pre-birth anxiety during pregnancy, especially during their first pregnancy, because so much remains unknown. ***Utilizing Advanced Integrative Therapy to Treat Anxiety and PTSD in a Pregnant Woman: A Single Design Case Report*** is a case study by *Elizabeth Pace* that explores the efficacy of Advanced Integrative Therapy in reducing anxiety symptoms in a woman carrying her first pregnancy.

Our CLINICAL PRACTICE section deepens the understanding of the significance of therapeutic presence in healing earliest trauma. ***The Therapist's Role in the Developmentally Sensitive Reparative Process: Providing a Corrective Emotional Experience*** by *Elya Steinberg* explores Biodynamic's approach to regression, illustrating practical ways biodynamic psychotherapists can become a "good enough" presence while considering how regression influences the re-establishment of bio-psycho-social functions. ***Do Babies Need Psychotherapy? An Introduction to Integrative Baby Therapy*** presents *Matthew Appleton*'s embodied relational short-term crisis intervention designed to support parents of distressed babies and young children. He examines two key interventions: Baby Body Language and Memory Crying. ***Polyvagal Theory for Perinatal Trauma: A Mother-Son Somatic Case Study*** by *Karen Roller* presents a mother-child case study using three frameworks – Judith Herman's tri-phasic model, Stephen Porges's Polyvagal Theory, and Daniel Siegel's interpersonal neurobiology – to address thwarted survival reactions and enhance needed safety and connection.

Ellen Gayda's ***Her Body Cannot Tell A Lie: Experiencing Emotional Somatic Awareness Through The Arts*** is a creative work that articulates the diverse emotional experiences stored in the feminine body, examined through the lens of somatic psychology and body psychotherapy, and expressed through verse, movement, and music.

Our BOOK REVIEW section features *Anne Matthews*' account of her book, *What is My Child Telling Me, That I'm Not Getting … Yet?* along with *Kate White*'s review of ***The Prenatal Shadow*** by Cherionna Menzam-Sills.

Aimie La Pierre Kalina Raycheva Helena Vissing

My Impressive and Memorable Journey with IBPJ Comes to a Close

Christina Bogdanova
Deputy Editor

With this issue, we bid farewell to our Deputy Editor, Christina Bogdanova, who has been a vital force in shaping the Journal over the past six years. As a highly esteemed member of our team, she has provided wisdom, stability, and unwavering professionalism. In its design, direction, and content, the Journal will continue to bear the indelible mark of her presence and creativity. We wish her every success as she continues to influence our somatic field through her teaching and healing work.

I have been part of IBPJ for six years, taking on various roles, tasks, and responsibilities. Throughout these years, I have witnessed both growth and transformation – not only within the Journal but also within myself. For the past two years, I have had the honor and responsibility of serving as the Journal's Deputy Editor. Today, as I step down from this role, I find myself in a swirl of emotions. There's an undeniable sadness as I say goodbye to something I have poured my heart, energy, time, knowledge, and creativity into. Yet, there is also an immense sense of pride and deep satisfaction, knowing that I have contributed to shaping something meaningful that, in my view, holds a vital place in our professional community.

Reflecting on these years, I realize how much this journey has meant to me–how much I have grown and learned, and how deeply I have invested in the Journal's success. It has been a tremendous joy, a privilege, and, at times, an exhilarating challenge. Every responsibility, every task, and every decision has been a piece of the puzzle, pushing me to grow in ways I never imagined. I take great pride in knowing that I have helped elevate it to new heights of excellence, dedication, and expertise.

What stands out the most in my heart are the countless hours spent in passionate discussions with Aline, Madlen, and Antigone, working together to breathe life into the Journal's new layout and content. Those conversations were not just about design, words, or structure; they were about vision and purpose, about making sure the Journal reflected the values and aspirations of our community. And I am incredibly proud of what we have

created together. It was a labor of love, a shared commitment to something greater than just the work itself.

Another moment that filled me with contentment was the special issue on war trauma, a project for which I served as the guest editor. This topic is close to my heart, as it touches on the very essence of human suffering and resilience. It stirred something deep within me, prompting me to dedicate my time and energy to amplifying the voices of those who have endured the unimaginable. My hope with this issue was to offer a powerful testament to the resilience of the human spirit, a call for peace, a plea for the restoration of common sense, and a firm commitment to standing against violence in all its forms. More than anything, the issue sought to explore how we, as body psychotherapists and somatic psychologists, can support and assist those living in war, those who are refugees, and those who have encountered overwhelming stress, fear, and loss; those who have lost loved ones, homes, and hope. This issue felt like a lifeline, and it was an honor to be part of it.

Throughout my time here, I have learned so much from the brilliant authors who have contributed to the Journal. We have received and processed a wealth of insightful articles, each one deepening our understanding of body psychotherapy and somatic psychology while expanding our horizons in ways that continually spark our creativity. These contributions have challenged us to think more deeply, question more meaningfully, and persistently strive to become better, more compassionate professionals.

But what I will miss the most is not just the work – it is the connections. Collaborating with my colleagues on the editorial team has been one of the most rewarding parts of this journey. I am grateful beyond words to each of you for your unwavering support, wisdom, and dedication to this shared mission. Working alongside such a talented and passionate group of individuals has been an honor, and I will carry the lessons from our collaboration with me for the rest of my life.

As I close this chapter, my heart is full of gratitude – for everything this role has taught me, for the incredible people I have had the privilege of working with, and for the lasting impact we have made together. Thank you all for this opportunity and for allowing me to be part of such a meaningful journey.

I wish the current IBPJ team – Aline, Helena, Kalina, our new Managing Editor Lillya, first readers, abstract translators, peer reviewers, and technical supporters – an abundance of inspiration, energy, and persistence as you continue your work. I truly believe that with your commitment and passion, you will expand the Journal's reach and amplify our professional voice even further. Keep pushing the boundaries of excellence, and know that your impact will resonate far and wide.

Continuing the Journey

A Note from the New Deputy Editor

I first joined the Journal in 2021 as a first reader and abstract translator, at a time when I was completing my first year of specialization as a body psychotherapist. From the very beginning, the Journal became an indispensable part of my journey – not only professionally, but personally. In many ways, it has "raised me" by helping to shape my entire stance toward the profession. As a young therapist (and person), it has been reassuring to feel connected to the international professional community, while I was learning to see both myself and the world through the lens of body psychotherapy. It brings me joy that, alongside my development as a psychotherapist, my role within the Journal has also evolved. In 2023, I became an assistant to the deputy editor, and today, I am honored to officially step into this role.

When Christina Bogdanova became Deputy Editor in 2021, she acknowledged the invaluable support of her mentor, Madlen Algafari, the former Editor-in-Chief of the Journal. In her editorial in Volume 20, Number 2, Christina wrote:

> "The idea for my early inclusion belongs to Madlen, who believes in succession. Hopefully, thus we establish one more solid tradition – to have new members on board before the expiration of the mandate of their predecessors."

Today, we can confirm that this tradition has been upheld. Just as Madlen guided Christina, it was Christina who approached me, offering me the opportunity to become her assistant and to later succeed her. She echoed Madlen's words to me: "You can do it! And I will be there for you." I am honored to follow in the footsteps of these two women, who have not only shared their immense talent and expertise with the world but have also supported others, like myself, in discovering and expanding their own abilities.

This intergenerational connection is not just theoretical – it is deeply personal. Madlen's belief in succession, passed down to Christina, has been passed down to me, and with it, an understanding of what it means to contribute to something greater than oneself. What is more, the dynamic of learning from those before us extends beyond the editorial team – it is, in my view, at the heart of the Journal itself. Just as I am growing by working alongside experienced colleagues, our readers and authors engage in a similar exchange. New voices bring novel perspectives, while experienced professionals share their knowledge and witness the evolution of the field they helped shape. This makes the Journal more than a collection of articles; it is, rather, a space where ideas are passed down, challenged, and refined, ensuring that body psychotherapy remains a living, evolving discipline.

I look forward to playing my part in this journey – gathering and sharing the finest knowledge our field has to offer, staying connected, and continuing the search for deeper understanding together.

Kalina Raycheva

From Our Readers

Bioenergetic Psychoanalysis

Embodied Emotions as Seen Through a 21st-Century Lens

Dear Editorial Team,

I am writing to you about a recently published article in the journal titled *Bioenergetic Psychoanalysis* by Leah Benson. This article, unfortunately, has several misstatements and mistakes.

The paper introduces "Bioenergetic Psychoanalysis," drawing heavily from Bioenergetic Analysis (BA), yet misinterprets key concepts. Alexander Lowen, a founder of BA, defines five character structures – Schizoid, Oral, Narcissistic, Masochistic, and Rigid – emerging during the generally understood specific formative periods of 0~3, 1~18, 8~24, 24~48, and 36~72 months, respectively. The author's modifications of these structures are presented without adequate justification, raising concerns about accuracy.

The section on character structure is incorrect and misleading, and statements that are the pillars of Lowenian bioenergetics are attributed to the author – for example, self-awareness, self-expression, and self-possession. These are taken directly from Lowen without giving him credit. I am a member of the editorial board of the journal *International Institute for Bioenergetic Analysis* (*IIBA*), and on the peer review board of the *IBPJ*. If this paper had been sent to me for review, I would have caught these issues. They bring down the quality of our journal. These mistakes and misstatements could have been avoided in revisions and subsequent edits.

The paper also offers an unclear and unsupported discussion of emotions. It conflates emotions, feelings, and affects, neglecting the established distinctions of emotions as body states (e.g., joy or fear), feelings as subjective experiences of emotions, and affects as outward expressions of these states. These misrepresentations, among others, contribute to broader conceptual confusion within the text.

In summary, while Bioenergetic Analysis remains a neurobiologically grounded, relational somatic psychotherapy that integrates bodily, analytic, and energetic dimensions, this paper introduces Bioenergetic Psychoanalysis in a manner that significantly diverges from its foundational principles without providing adequate justification.

I would like, with all due respect, to suggest that papers on Bioenergetic Analysis and/or closely related fields should include me as a reviewer. I would like to keep the quality of our *Journal* high and make sure that mistakes and misstatements are caught before the papers are published.

Best wishes,
Homayoun Shahri, PhD, MA, CBT, LMFT

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Response to Homayoun Shahri

This paper (Benson, 2024) introduces not "Bioenergetic Psychoanalysis" per se, but the term *bioenergetic psychoanalysis* as a way to distinguish the practice of Bioenergetic Analysis with a depth-oriented focus from Bioenergetic Analysis with a symptom-oriented focus. This distinction was specifically noted in the first paragraph of the article.

That said, the opinion of the commenter that I attributed the concepts of self-awareness, self-expression, and self-possession to myself assumes that I am distinguishing Bioenergetic Psychoanalysis as something novel and of-my-own, rather than designating a specific way that many clinicians orient themselves as they practice Bioenergetic Analysis. As noted above, I am not claiming to have introduced a new form of Bioenergetic Analysis. I state in the first paragraph that Lowen developed Bioenergetic Analysis. The concepts of self-awareness, self-expression and self-possession, and their phrasing in that order, are well known to be Lowen's, and he is referenced in the bibliography.

With regard to the assertion that I misinterpreted key concepts of Bioenergetic Analysis, developmental periods of character structure are the only specific misinterpretation noted, so I will address this concern.

I contend that while Lowen may have located the development of character structures in the "specific formative periods of 0~3, 1~18, 8~24, 24~48, and 36~72 months," human physical and cognitive development proceeds with variation. Character structures are not essences with fingerprints that can be located or shown to develop specifically during the above noted "formative periods." Character is phenomenological and diagnostic, not neurobiological or physiological. No character structure has been empirically demonstrated to be mapped to a specific body state, brain pattern, or cognition in every instance. As in all development, variation is the norm.

In addition, Lowen's inferences about the development of specific cognitions and emotional states that correspond to physical development are just that – inferences. There are no empirical studies of character structure that justify a rigid coherence to Lowen's specific designations of formative periods, body types, or specific cognitions and emotions.

I presented character structures with a view of them through the lens of 21st-century cognitive science. Specifically, the modifications I made relate to the capacity for conceptual categorization as it proceeds in development. For example, babies are known to acquire a sophistication in their ability to conceptually categorize as early as three months of age (Vouloumanos & Waxman, 2014; Ferry et al., 2013), but not before. This would justifiably place the beginning of the oral phase of character development at three months of age, not one month. In addition, the specific content of conceptualizations that children make during different phases of physical development can be understood only in the context of their culture. For intrapsychic aspects of character structure to follow the specific conceptualizations that Lowen hypothesized, traits of character structure would require rote conceptual categorizations of experience across all cultures. Again, there are no empirical studies of character structure or cognition to justify his ideas, or his "specific formative periods," as unquestionable.

Since the modern neurobiological understanding of conceptual categorization and its unfolding in development came at the end of Lowen's life and afterward, it makes sense that he relied on ideas of cognitive development and intrapsychic models from the 19th and 20th centuries in his writings. That does not make them correct today in the face of new evidence. My justification for modifying the developmental timelines of these structures is derived from review and synthesis of current cognitive science, including predictive processing and active inference literature, as cited in the bibliography.

I will next respond to the claims that the paper "offers an unclear and unsupported discussion of emotions," and that "it conflates emotions, feelings, and affects, neglecting established distinctions: emotions as body states (e.g., joy or fear), feelings as subjective experiences of emotions, and affects as outward expressions of these states."

Respectfully, I believe that the commenter's "broad conceptual confusion" comes not from an "unclear and unsupported discussion of emotions" in the article, but from the use of a different and empirically superseded theoretical perspective. For reference, Appendix A describes the 21st-century view of brain function and emotion set forth in this article. A review of the bibliography of the commenter's own article (Shahri, 2022) includes Damasio, and appears to be the source of the "established distinctions" he noted. To be clear, I reject Damasio's view of emotions, feelings, and affect. Too much evidence refutes the somatic marker hypothesis of emotion for me to accept it.

Specifically, while emotions may be "body states (e.g., joy or fear)," a vast body of literature debunks the idea that there has ever been an emotion that maps to a specific body state, brain pattern, or facial expression (Barrett et al., 2019). The location of emotions in the body cannot be repeated in experiments with consistency or reliability. Instead, variation is the norm. As one of the top 0.1% most-cited scientists in the field of affective neuroscience says, in paraphrase, for every study that claims to find a specific location of an emotion, many more suggest otherwise.

In addition, the idea of "feelings as subjective experiences of emotions" loses coherence when conceptual categorization is meaningfully understood. In today's mathematically-based cognitive neuroscience framework, feeling and emotion, along with cognition and behavior, are considered conceptual categorizations. The article specifies this explanation, and the bibliography cites its references to predictive processing and active inference.

Finally, the assertion that affects are "outward expressions" of emotions and feeling states appears to indicate a use of the term "affect" in its general meaning, rather than in the meaning used in this article. The general meaning of the term "affect" does indeed describe the phenomenological expression of emotions and feelings. However, in this

article, the term "affect" has a specific 21st-century meaning, as noted in the provided reference (Russell & Barrett, 1999), and in numerous other provided citations from the current predictive processing and active inference literature. Affect, in this 21st-century sense, is the general feeling of how energetically aroused, and how good or bad the body-mind system feels at any given time. These are known as the dimensions of core affect, and are referred to as arousal and valence.

In summary, in no way was I taking ownership of Alexander Lowen's ideas and phrases, nor was I misrepresenting them. As the title suggests, I was looking at them through a 21st-century lens. In addition, rather than diminishing its quality, I contend that by referencing, synthesizing, and explaining in simple terms the modern, widely accepted, computationally-derived cognitive neuroscientific framework of emotion, cognition, and behavior known as predictive processing and active inference, the quality of this journal is elevated. Finally, I invite anyone experiencing broad conceptual confusion around the framework to familiarize themselves with the article references and the 4E Cognition discussed in the compelling *International Body Psychotherapy Journal* interview of Giovanna Colombetti (Selvam, 2024).

Leah Benson, LMHC

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Special Section

GUEST EDITORIAL

A Room of Our Own in the Somatics House

Prenatal and Perinatal Somatics

Kate White

Well-known writer Virginia Woolf published *A Room of One's Own* in 1929, the same year that the now-famous volume introducing birth psychology, *The Trauma of Birth* by Otto Rank, was published in English. In her book, Woolf argues that for women to achieve their full potential, they need "a room of one's own." Her metaphor meant that women needed financial independence, freedom, and a literal space to create written works of art. I now take this metaphor for the work of Prenatal and Perinatal Somatics introduced in this volume. I am setting about constructing a room in the house of Somatics, a field of practice with a long history but still building its presence in the therapeutic world. The United States Association of Body Psychotherapy (USABP) is welcoming practitioners of Prenatal and Perinatal Somatics to come and make themselves at home within the organization, and contribute to their "Somatics House."

Prenatal and Perinatal Somatics is a term coined by Ray Castellino, RPP, BCST, DC, founder of the Castellino Training, a somatic practice that integrates the earliest layers of human experience beginning with preconception. His work was built on the pioneering efforts of many practitioner teachers such as William Emerson (1983; 2002), A.T. Still (2015), William Sutherland (1990), Franklyn Sills (1989/2002; 2011/2016; 2013/2016), and Randolph Stone (1986). This energetic, physiological, and spiritual practice welcomes spirit coming into form, and seeks to integrate early overwhelming experiences that create disruptions in humans at the beginning of life. Such experiences include

interventions, assaults, challenges, and disconnects that show up in the bodies, and therefore the minds, of developing humans, and extend to transgenerational and intergenerational traumas, conception dynamics, prenatal experiences that sometimes only the baby knows, birth dynamics of all kinds, early relational dynamics, and after-birth experiences.

Castellino described these earliest layers of experience as somatic because they are implicit, procedural, bodily felt memories laid down before cognition, which begins when language develops, or around 18 months to two years old. Therefore, they are not "psychological," which, as a therapeutic discipline, addresses human emotional, mental, and psychological patterns. Prenatal and Perinatal Somatics lie solidly in the realm of the baby's experience. Yet, for nearly the last 100 years, it has been described as "birth or prenatal psychology" (Gouni, Janus, Verny, Brekhman, Turner, Turner, Rakovic, Janov, Odent, & Sovilj, 2002). During that time, practitioners (Janov, 1970; Emerson, 2002; McCarty, 2018) described these earliest experiences as "primal" or "primary," and in truth, they are! They lay the foundation for human life with what may be called the roots of health and disease. Essentially, our ancestral lines, how we are welcomed, the conditions in the womb, how we are birthed and received in relationship with our parents, families, society, and culture shape who we become, including everything that happens along the way.

It is time for those who practice integrating earliest life experiences to claim our own space. Somatics may describe our work, or the field of study that "is of or relating to or affecting the body" ('Somatic,' 2025) and its relationship with the mind, self, other people, and the wider world. Although "psychology," which can be defined as "the scientific study of mind and behavior" ('Psychology,' 2024), may also include "faculties of reason, emotion and perception" (Oxford English Dictionary, 2024), tellingly, it does not include the body. I remember Ray Castellino passionately saying that understanding how these early experiences shape us is necessarily somatic and implicit because it occurs during the phase of our development when only the right brain is online. However, the autonomic nervous system is fully operational. Therefore, experiences become memories and are laid down in our bodies, which "keep the score" (van der Kolk, 2014), "remember" (Rothschild, 2000, 2017), and "bear the burden" (Scaer, 2001).

Over decades, Castellino developed tools for practitioners to address the earliest experiences somatically. In my training programs, I tell participants that earliest trauma shows up as a somatic pattern language. The body tells the story with posture, shape, gesture, and autonomic nervous system states. And, as Peter Levine (2014) explains, these implicit memories are powerfully compelling and 'hot' – they arise quickly. Students stud-

ying earliest trauma learned the patterns over many years of working with adults (White & Rhodes, 2014). All our most difficult autonomic nervous system states – horror, terror, survival, fear, and adaptative nervous system responses to shock and pain – originate in our early experiences. Ecstatic states also begin there, as well as feelings of power and mastery, and so much more.

Many of these early patterns are related to traumas and threats to human existence. Our field is full of near-death experiences and overwhelming sensations connected to interventions, chemicals, the stress states and habits of our parents and ancestors, and relational ruptures that can feel life-threatening to infants. Until now, practitioners of all kinds did not see infants as being capable of integrating traumas or even being able to register them at all. I credit Ray Castellino with developing ways of being with early overwhelming experiences that are softer, slower, and easier to integrate and make sense of in adults and families with babies. Castellino's methods included the Womb Surround™ method, facilitated movement with babies, children, and adults, and other therapeutic forms that helped practitioners and clients recognize and integrate these memories.

Castellino also emphasized the health of our system. This concept, borrowed from osteopathy (Still, 2015), has become known in PPN Somatic circles as "the Blueprint," a term coined by Anna Chitty (Blueprint Resonance, 2024). A.T. Still (2015), the founder of osteopathy, famously said, "To find health should be the object of the doctor. Anyone can find disease" (p. 28). Castellino's colleague Anna Chitty, a Biodynamic Craniosacral Instructor, coined the phrase Somatic Blueprint to describe this foundational energetic and physiologic health in our system that is always there. Chitty has blended her understanding of our greater spiritual natures and energetic development with acknowledgment of our earliest trauma, so that when we integrate these early overwhelming states that may still be active in our bodies, we can also easily access our essential human qualities, like compassion, love, kindness, joy, delight, strength, clarity, and even power – a power that is more peaceful than forceful (Colorado School of Energy Studies, 2025). If we tend to these early experiences, humans begin their lives with greater ease. They can go on to live their purpose on planet Earth instead of wrestling with unintegrated early traumas that contribute to or even manifest as physical, psychological, mental, and spiritual disease in humans. The work can indeed bring truth to the saying that *Peace on Earth Begins Before Birth*.

Since its inception, birth psychology has worked towards being accepted in the science of psychology as an evidence-based approach. It has established peer-reviewed journals, such as the *Journal of Prenatal and Perinatal Psychology and Health* (JOPPAH). APPPAH's founders, Thomas Verny, MD, and David Chamberlain, PhD, MD, worked for decades to document the evidence that early experiences form a template that lasts a lifetime and is the genesis of illness and disease that can be averted if we see babies as sentient, aware, and having a fully human experience beginning with preconception (Verny & Kelly, 1981/1988; Verny, 2023; Chamberlain, 2013). Birth psychology also has European organizations and conferences that present the baby's experience, or earliest human development, as medical in nature, as witnessed in the presence and endurance of the International Society of Prenatal and Perinatal Medicine (ISPPM). In 2013, I founded and directed APPPAH's Department of Education, which I ran for six years. Over this time, I witnessed firsthand the challenges that Castellino had in asking that organization to include prenatal and perinatal experiences from the baby's perspective as somatic.

Other sciences have also developed theories and practices associated with earliest trauma experiences, such as Fetal Origins of Health and Disease (Barker, 1990). Exploring these research areas, one cannot help but notice that we have known for a long time that our earliest experiences in life create templates for health and disease. Current fetal

medicine research also supports how overwhelming experiences during the prenatal and perinatal period create neurodevelopmental markers in our genome that may not be expressed until later in life, especially as mental illnesses that cause a lifetime of suffering (see, for example, International Symposium on the Fetal Brain, 2019).

I have been a practitioner of Prenatal and Perinatal Somatics since 1999, when a client remembered her birth on my bodywork table, and have seen the growth of many fields of practice related to trauma and somatics over the past 26 years. The roots of my therapeutic practice lie in Biodynamic Craniosacral Therapy and then grew to include the Castellino training, Somatic Experiencing®, Advanced Family Training from a somatic perspective, Polarity and Polarity Life Coaching, multiple baby, pediatric, and infant courses, and many personal explorations of my early trauma so I could integrate and heal.

I believe it is now time for Prenatal and Perinatal Somatics to be a field unto itself, for us to have "A Room of Our Own," as Virginia Woolf articulated nearly 100 years ago. This Room is the professional space to support the creation of Prenatal and Perinatal Somatics as a modality separate from psychology. Our Room is in the Somatics House, studying the body and its impact on the mind. We support the USABP's vision to formalize the field of somatics, and we invite somatic practitioners of all kinds to join us.

Enjoy the papers in this volume. They are but a taste of things to come. Join us in establishing this field of practice to find fellowship and a container to support you on your professional journey.

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Prenatal and Perinatal Somatics

Eight Practice Principles and New Horizons for Integrating Earliest Trauma

Kate White

ABSTRACT

Prenatal and perinatal somatics is a new field of practice that arises from the study of birth psychology. This paper describes the "long and winding road" of prenatal and perinatal psychology (PPN) and the emergence of prenatal and perinatal somatics as a field of practice. Eight practice principles are presented to describe this emerging field, suggesting new possibilities for supporting the vital and vulnerable prenatal and perinatal period.

Keywords: prenatal, perinatal, psychology, somatics, principles

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> ***...the therapeutic space in many modalities is widening to include the baby's experience...***

Healing from earliest trauma as an adult is a journey of exploration, discovery, and deep process because it is a foray into implicit somatic memories, often with little cognitive story. Each step is a felt-sense experience; our memories lie in our bodies, and are formed before language comes online. Memories may also emerge from our early childhood, family dynamics, adolescence, and adulthood. We can traverse the earliest territory relatively easily if we have a map and a facilitator. Even still, it may be hard work for a traveler in those lands, as each layer may have a feeling of survival based on the conditions of the time. I hope this paper will help the enthusiastic traveler in healing begin finding their way thoughtfully and expediently. We have learned to recognize the early layers through decades of work with adults, starting in 1929 with Otto Rank's slim volume, *The Trauma of Birth*. Over the past century, we have witnessed the contributions of many pioneers in the field of prenatal and perinatal psychology (PPN) (Gouni, Janus, Brekham, Turn, Turner, Janov, Sovilj, 2022; White & Rhodes, 2014). The newest trends in PPN include prenatal and perinatal somatics, which integrates skills that support wellness by healing the earliest ruptures through what we feel in our bodies. This paper describes eight practice principles for entering prenatal and perinatal somatics, and

explores new horizons for preventing and healing earliest trauma.

Ray Castellino, RPP, RCST, DC, coined the phrase prenatal and perinatal somatics. Over many years, an active member of the prenatal and perinatal psychology community, he maintained that early layers of experience explored in PPN are necessarily somatic because they are implicit or body-based memories. The body (and mind) lay down body memories as it develops, from preconception to age two, when language and cognition begin. Our bodies retain intrauterine memories through posture, sensation, emotion, and movement (Levine, 2015; Chamberlain, 2013). In utero, we "pre-exercise" what we do outside the womb with actions such as jumping, standing, thumb sucking, squirming, contracting, extending, crying, sleeping, and even dreaming (Blechschmidt, 2012; Chamberlain, 2013). We now accept that experiences during the prenatal and perinatal period lay down templates for patterns of behavior, understanding, perception, and worldview because of our more profound understanding of trauma and its lasting impact unless it is healed (Verny, 1981/1988). Therapeutic discoveries in the healing arts, such as trauma-informed care (SAMSAH, 2014), epigenetics (Szyf, 2014; Szyf & Meaney, 2008), polyvagal theory (Porges, 2011, 2017; Porges & Dana, 2018), social neuroscience (Siegel, 1999/2020, 2008, 2010, 2012, Siegel & Hartsell, 2013; Cozolino, 2014), fetal brain research (Ursini, 2021; Weinberger, 2019), and attachment (Bowlby, 1944; Heller, 2019; Siegel & Hartsell, 2013; Schore, 1994, 2003a, 2003b, 2016, 2019, 2021) furthered our knowledge about earliest trauma. Our soft and hard sciences make it clear that trauma impacts our bodies and therefore, our minds, starting at preconception (Van de Kolk, 2014; Weinstein, 2016; Barker, 1990; Monk, 2020; Monk, Lugo-Candela, & Trumpf, 2019).

The road to current PPN practices is long and winding. In 2014, I co-wrote a paper with Jeane Rhodes, PhD, titled *Trends and Influences in Prenatal and Perinatal Psychology* (White & Rhodes, 2014), which traversed that road, carrying the reader along the path (Figure 1). Our PPN practices enjoyed certain stages of growth, starting with psychodynamics. Our original pioneers began with psychoanalysis in a deep Freudian tradition (Rank, 1924), but also included Wilhelm Reich (1933/1936), one of the founding fathers of body psychology, and Donald Winnicott (1947/1964). Our historical trends furthered psychoanalysis and also began to include breathwork (Grof, 1993; Grof & Grof, 2010/2023; Orr & Ray, 1977/2007), LSD (Grof, 1976; Lake, 1981), transpersonal and consciousness studies (McCarty, 2004; Wilber, 1985), and gentle birth practices (Dick-Read, 2013; Odent, 1994). Formal channels saw the development of organizations such as the Association of Prenatal and Perinatal Psychology and Health (APPPAH), which supported how the baby's experience could influence health throughout the lifespan, attachment research (Tronick, 2007; Trevarthen & Aitken, 2001; Beebe, 2016; Ainsworth, Salter, Blehar, Waters, Wall, 2015), infant laboratories (Spelke, 2022), and the understanding of what happens for babies in the womb (Chamberlain, 2013; Barker, 1990). Further down the road, in the 1990s, more science came on board, with research from the Decade of the Brain (Shonkoff & Phillips, 2000), acceptance of epigenetics (Szyf, & Meaney, 2008), neuroplasticity (Doidge, 2007), and affective neuroscience (Siegel, 2012; Cozolino, 2014; Schore, 2003a, 2003b), which also supported the primacy of the prenatal and perinatal period (McCarty, 2018).

This century witnesses the beginning of integrative therapies that blend science, research, and practice. Resolution of earliest trauma now has many pathways, including trauma-informed care, bodywork, movement therapies, interpersonal psychology, mindfulness, resilience and strength-focused work, Internal Family Systems, and post-traumatic growth. New horizons in prenatal and perinatal work are further refined with integrated practices, one of which is prenatal and perinatal somatics. This unique therapeutic model of care blends mindfulness, listening, relationship, somatic trauma resolution, and relational and inquiry practices with touch. We can begin with eight basic principles of practice.

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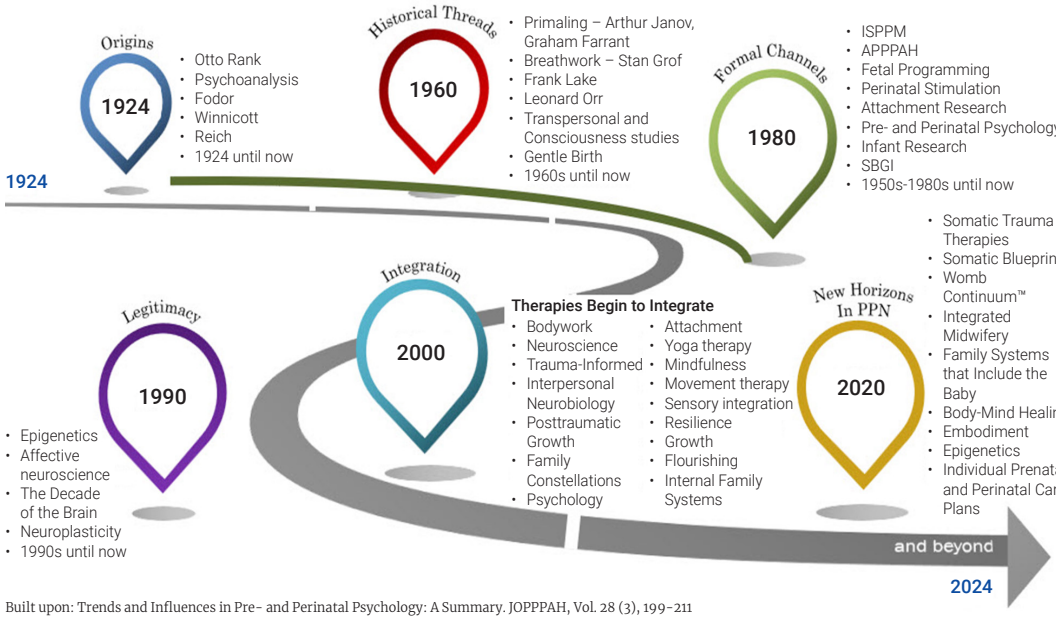

Built upon: Trends and Influences in Pre- and Perinatal Psychology: A Summary. JOPPPAH, Vol. 28 (3), 199-211

PPN Pathway of Influences

ppncenter.com

Figure 1. *The Long and Winding Road of PPN Trends and Influences. Original image: APPPAH Educational Program, Toolkits for Facilitators*

Eight Practice Principles for Prenatal and Perinatal Somatics

PRINCIPLE ONE

Prenatal and Perinatal Somatics Address Early, Implicit Memories Held in the Body

Early memories in adults appear through sensation, feeling, gesture, posture, and metaphor. As mentioned previously, our earliest environment impacts our nervous system, bodies, and, therefore, minds. Our genetics predispose us to sensitivities, and support our strengths from our family lines. As we develop in utero, the experiences of our parents may leave neurodevelopmental markers in our genome (Weinstein, 2016). The uterine shape, umbilical cord, or placenta may also create a felt sense experience that becomes a memory. If it is overwhelming and not integrated, that memory remains looping and alive in our bodies until it becomes resolved. Birth is a big, body-based experience that is often painful. It can also be empowering. How we come into relationship with our parent(s) is also a memory (Van der Wal & White, 2024), which is often ruptured by medical interventions during and after birth. Traumas experienced by our parents may also impact us as we are in relationship with them and their experiences (Weinstein, 2016). If feeding is challenging, that is another layer, and at times, tragedies and

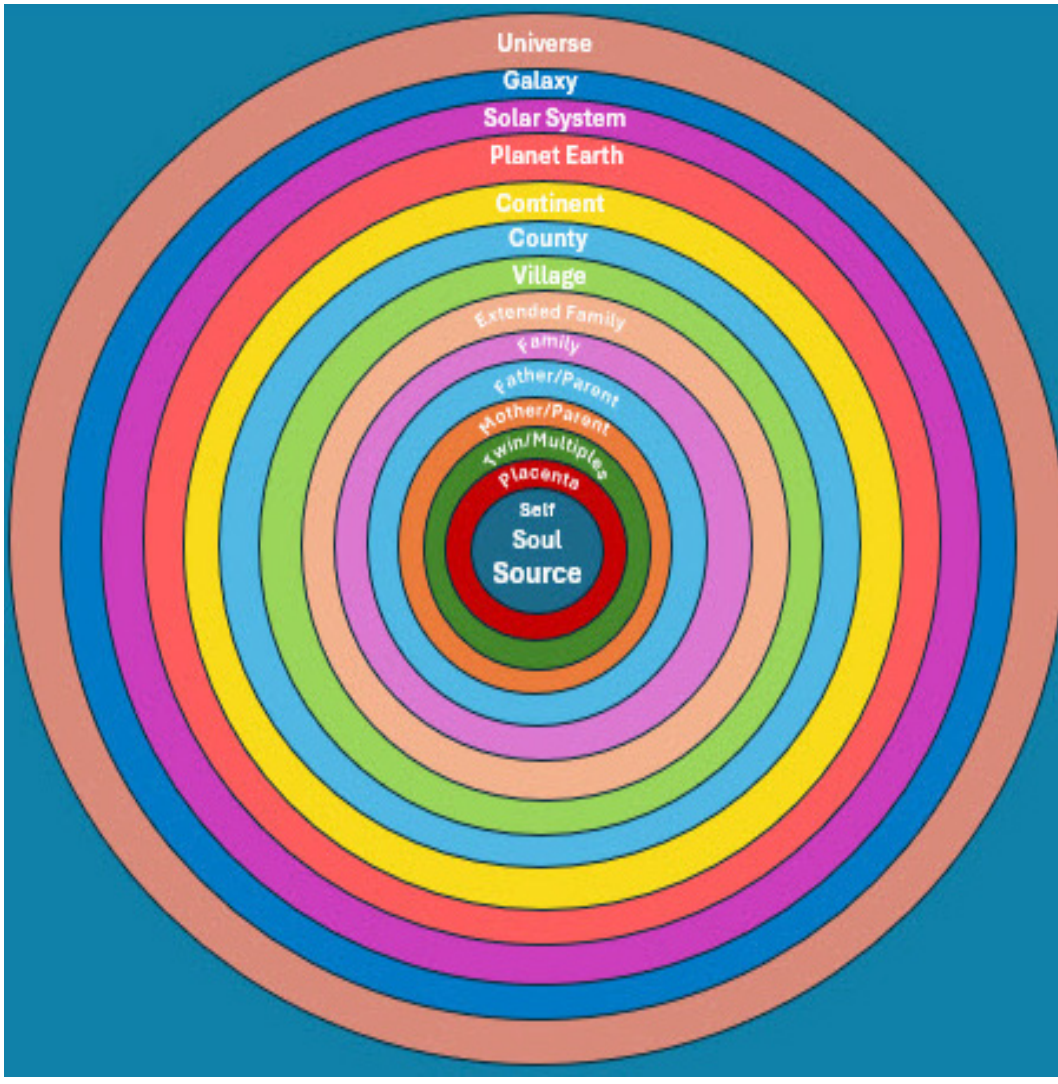

Figure 2. *Continuum of Circles by Ray Castellino. Source: Castellino Training Corporation*

disruptions occur that are not explained to babies. It is more accepted now that babies can remember prenatal life and birth, and those memories can remain alive in our bodies until the story is told in such a way that it is seen, heard, and felt. **This is the work of prenatal and perinatal somatics**.

Prenatal and perinatal psychology pioneers have explained how we "remember" earliest layers of experience, and the importance of "consciousness" as a theme in human development, starting at preconception (Grof, 1976; McCarty, 2004; Blasco, 2006; Van der Wal & White, 2024; Verny, 1981/1988; Menzam-Sills, 2021). In *The Embodied Mind*, Verny (2023) explains how we can remember our earliest experiences by exploring anatomy. Memory storage and retrieval theories were enlightened by the study of the sea snail, for which Eric Kandel won the 2000 Nobel Prize in Physiology. His research proved that these simple organisms could have memories (2001). Verny expands on Kandel's theory about how memories are stored in synapses by exploring glial cells, other ana-

tomical features, and periods when brain cells are sparse, suggesting alternative sites where memories may be stored. He concludes that memories are stored in the nucleus of neurons, dendrites, and axons that connect with other neurons. These neural pathways carry sensory information; each time a memory is recalled, it creates a building block of memory.

Memory is encoded in various anatomical structures – synapses, neurons, glial cells, and surrounding neuronal areas. The most active period of neuronal development occurs at the beginning of the second trimester when 250,000 neurons are created every minute (Kolb & Gibb, 2011). A child is born with 100 billion neurons, as many as the stars in our galaxy, and a trillion synapses or interconnections (Verny, 2023). Verny clarifies that our bodies are one large vibrating network of communication, memories, and information, with many structures that work together – brain, spinal cord, cranial nerves, and neural pathways impact how we think, feel, and behave from moment to moment. He proposes a more holistic theory of memory:

> It is time we put to rest the myth of the enskulled brain and mind and adopt the scientifically evidenced-based concept of the embodied brain and mind. This is a transformative, novel concept in psychobiology, at once paradigm-shifting and empowering. We think, feel, and act with our body. We relate to the world with our body. Our mind is body-bound. (2023, xiv)

We make our bodies in utero. Our memories start there.

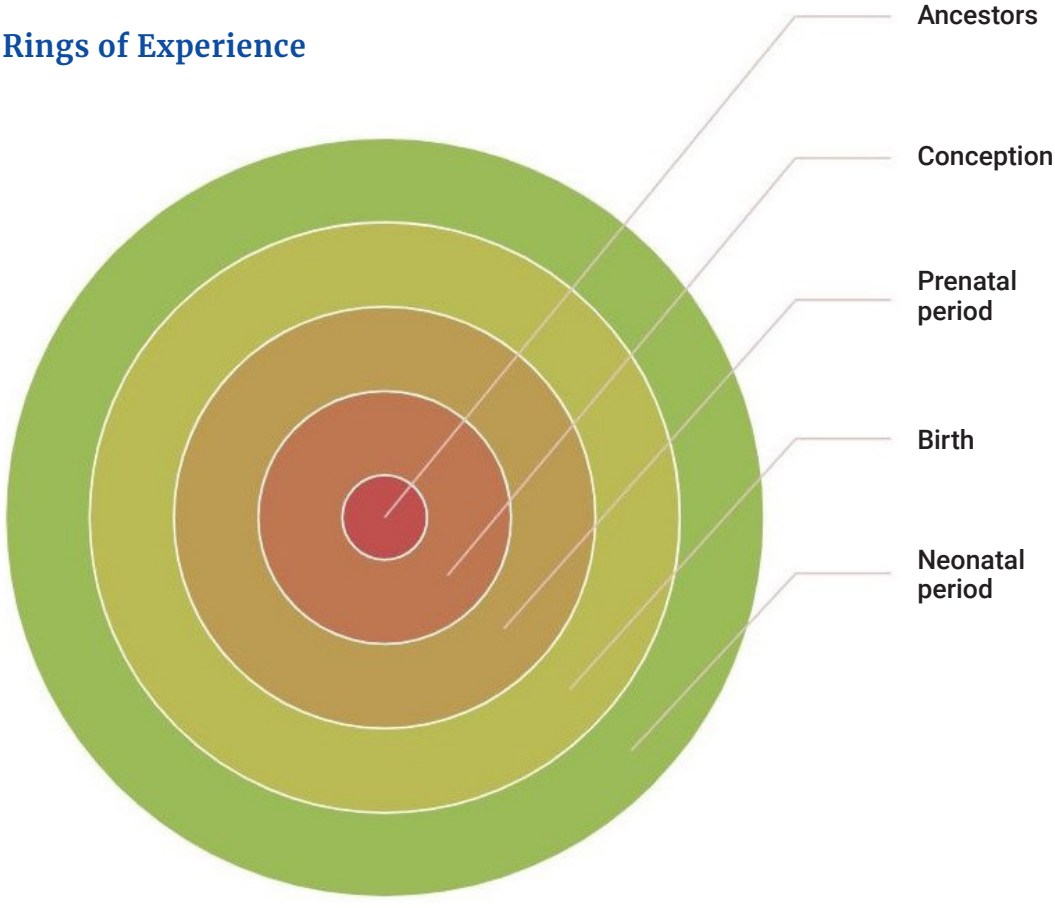

Figure 3. Rings of Experience

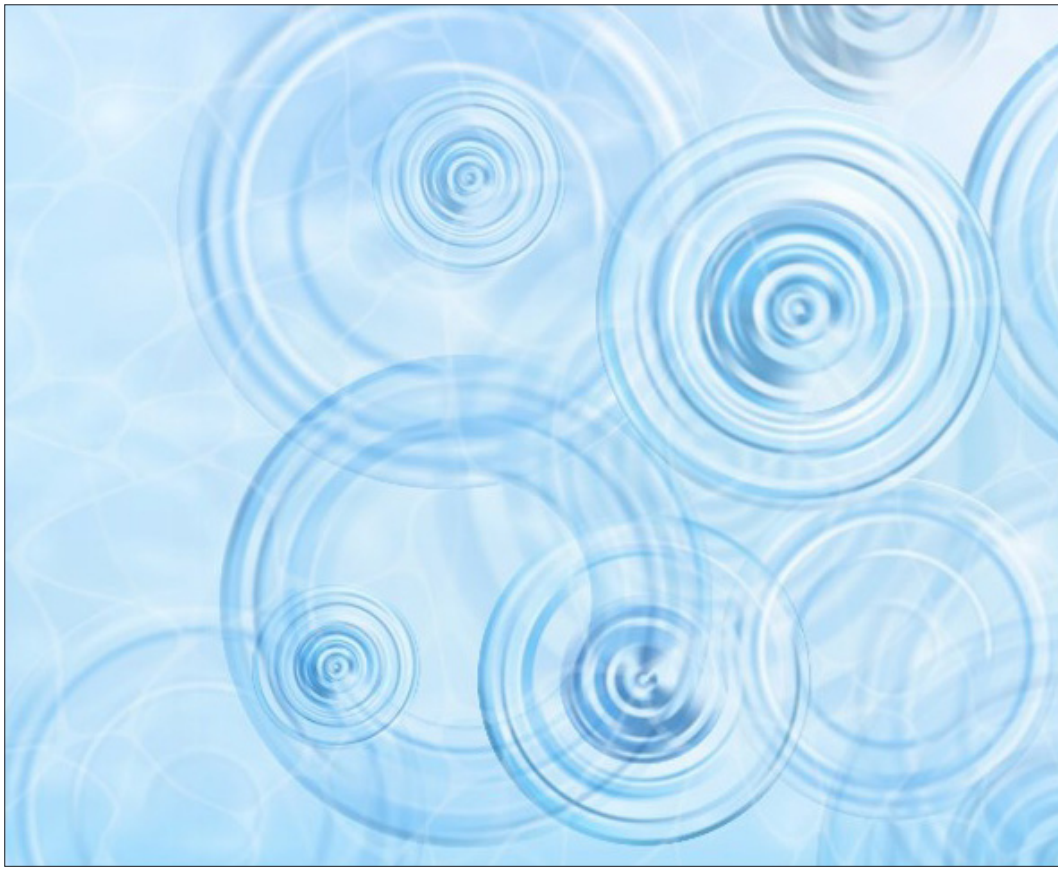

Figure 4. *Resonance*

PRINCIPLE TWO

Early Implicit Somatic Memories Show Up in Layers

We begin at preconception, noting transgenerational and intergenerational influences on our DNA and body memories. Ray Castellino introduced the notion of rings of experience to describe the layers that shape us. We come into form from Source, where our Spirit abides before and after life. Then we drop into our bodies, and our Soul emerges. From there, we experience Self, Twin/Placenta, Mother/Parent, Father/Other Parent, Family, Extended Family, Place on many levels, and Planet.

I have created an additional map for brevity's sake to help adults and families track their experience. As we explore our layers, we ask questions, understanding that each layer carries its history, experiences, and sensations. Each layer may encompass moments of near-death, survival, love, connection, and ecstasy. Recognizing and naming these layers are essential parts of the art of working with our earliest trauma. The training gives the practitioner a felt sense of each layer, enabling us to identify what emerges in the therapeutic space and the client's life.

PRINCIPLE THREE

Healing Prenatal and Perinatal Early Trauma in Adults is Often Achieved One Layer at a Time

Prenatal and perinatal somatic trained practitioners recognize what layer needs attention first. For example, many adults come to explore their experience at birth, but often, something in the time

of preconception must be addressed before birth pattern work can take place. Birth stories and information are compelling; they draw our attention to the dramas coming from inside the parent to outside. Often, this passage is painful, and may have moments of big feelings that include empowerment, achievement, despair, terror, and survival. Babies show their stories outside the womb through gestures, movement, autonomic states, and crying (Appleton, 2017). Adults can reveal aspects of their lives and patterns that seem perplexing but are rooted in prenatal and perinatal somatics. These stories, conveyed through the felt sense, can be slowly addressed one layer at a time. Layers that I frequently work with in adults include:

- Incarnation
- Transgenerational and intergenerational trauma
- In utero experiences
- Relationships within the family
- Birth sequences
- After birth sequences

PRINCIPLE FOUR

Prenatal and Perinatal Somatics is a Resonant Phenomenon

Each person in the prenatal and perinatal experience carries a resonance. Resonance rings out like a bell or sends out concentric circles, like a drop of rain on water. One of the tasks of a prenatal and perinatal somatic practitioner is to bring people in the early experience together in a harmonic way. I like using this image of raindrops on water to illustrate how the harmonics of birth can look and feel. It is the same for families. We are tracking how everyone came together, and how it feels to be in the space. Ray Castellino taught me to feel into the space. Is the pace fast? Slow? Prickly? Cold? We are listening and feeling for all the people who participate in the early layers – those who attend the family and birth, and the extended family. The cultural, societal, and professional milieu, as well as any ancestral history, may also impact the process, Then there are the practitioners, past and present. In working with adults to heal earliest trauma, the practitioner is tracking in a multidimensional way, welcoming them as spirits coming into physical form, believing in the health of the system that made their bodies, was born, and is now in present time (Menzam-Sills, 2021). Often, people cannot feel this level of health, as they are spinning around in the traumas that plague them. However, the practitioner knows that health is there and resonates with that.

PRINCIPLE FIVE

Everyone Has Health in Their System

No matter how bad the trauma is, you know that the person seeking your help has health. The practice of prenatal and perinatal somatics is health-based, not trauma-focused. This is a central principle in all our work, arising from the study of osteopathy. A.T. Still (1899), founder of osteopathy, is quoted as saying, "Health is always present. To find health is the object of the doctor. Anyone can find disease" (p. 28). Similarly, Castellino, a Doctor of Chiropractic, embraced this principle in his work. He also studied with Randolph Stone, who blended many philosophies, approaches, and treatments in his development of Polarity Therapy (Stone, 1986; Sills, 1989/2002). Castellino also studied with Franklyn Sills when he came to the United States to offer his Biodynamic Craniosacral Therapy training. Castellino met John and Anna Chitty at that training in California, and the three practitioners/teachers collaborated over many years. Their relationship fostered a growing understanding of the inner health of humans.

There is a belief in the blended therapies of Osteopathy, Biodynamics, and Polarity that the body has inner health that is always accessible. This health is fueled by a pulse and rhythm linked to cerebral spinal fluid flow (Upledger, 1997). Cranial practitioners of all kinds are taught to palpate this inner rhythm, and restore the body to health using manual therapy. Polarity practitioners also employ different kinds of touch to help the body come into balance on an energetic and physiological level. Dr. Stone, Polarity's originator, added a spiritual level to what is possible for humans in therapy. He describes the journey of incarnation as a "step down" experience from a spiritual realm from which we all emerge into the body. The therapeutic approach includes embodiment and how it aids or hinders our best human life. These therapies all influence prenatal and perinatal somatics.

Practitioners trained in prenatal and perinatal somatics are oriented to health in people – all people. It is efficient to work with babies and families to support human development at this critical developmental stage. John Chitty often quoted a proverb popularized by Alexander Pope: "As the twig is bent, so grows the tree" (Speake, 2015). This means that when trauma, rupture, or environmental challenges occur, the human will grow in response and adapt. We need to recognize family preconceptions and install health practices. Adults wanting to conceive will have layers of experience to address. As practitioners, we are trained to see the layers of experience, understand their impact, and resonate with the deep health we know is present in every person. It is felt as a slow rhythm in the body. It can also be seen in autonomic nervous system states, resilience, and post-traumatic growth.

Ruptures in the prenatal and perinatal periods linger in the body, operate unconsciously in the background, and can influence the present. Many responses to overwhelming events are in the interest of health. Since health is inherent in our systems, we can work with adults, children, families, and babies to integrate overwhelming feelings and encourage a state of wholeness. Prenatal and perinatal somatics shine a light on what Anna Chitty called the Blueprint, our original matrix for health (Blueprint Resonance, 2024). We use touch to work with the Blueprint and use facilitation skills to allow the integration of prenatal and perinatal wounds.

PRINCIPLE SIX

Earliest Trauma Can Be Prevented by Working with Families Before, During, and After Birth

By including the baby's experience in everything that happens during the early period, we become more conscious of optimal experiences for human development. We start with preparation during the preconception period, conscious conception, healthy pregnancy, gentle birth, and bonding and attachment before and after delivery. Conception, birth, and what lies beyond sometimes go smoothly. We can work to help families prepare well, attend to them with great care during birth, and catch them afterward so they feel supported and held.

PRINCIPLE SEVEN

Healing Can Happen at any Time

The most important tools are consciousness and the power of choice. Our prenatal and perinatal somatics tools help clients differentiate between past memory and present experience. People can heal at any age – from seven days to seventeen or seventy years old.

PRINCIPLE EIGHT

Early Wounding is Next to Our Truest Spiritual Nature

As these early layers heal, our greatest human essence emerges: compassion, love, generosity, kindness, capacity for connection, strength, will, discernment, peace, sense of purpose, happiness, joy, and more. Anna Chitty's Blueprint course, which she teaches in the school she led with her late husband John Chitty, provides the skills, the nervous system felt sense responses to trauma, the health that is always there, and the experience of our essential qualities.[1] I find her approach easy to apply to the prenatal and perinatal periods because this is when our human and spiritual aspirations coincide. We welcome new beings into our families, societies, cultures, and the world. We want what is best for humanity on a small, medium, or large scale. Conceiving, carrying, and birthing a child is one of those threshold times in life where we can hope for change and commit to the life we want for ourselves and our babies. When hurts happen here, they can be very damaging if left unmended. Prenatal and perinatal somatics focus on addressing early developmental layers in adults, preventing and treating perinatal trauma within families, and providing therapeutic support for babies. Our truest nature lies beneath or connected to these early traumas and imbues us with strength, curiosity,

1. See energyschool.com for information about Blueprint Resonance, and other offerings that support healing and the nervous system.

and resilience to face early traumatic experiences. We can discover more about who we are with support from a trained facilitator and maps of our early experience.

Summary of Maps and Tools in Prenatal and Perinatal Somatics

A facilitator trained in prenatal and perinatal somatics is fluent in autonomic nervous system responses and prenatal and human development – especially needs associated with different ages, transgenerational and intergenerational traumas, and how they are passed down into the present, and therapeutic skills and guidelines to help those seeking integration of earliest trauma. I employ the metaphor of maps because they are easy to learn and apply. For practitioners wanting to learn earliest trauma facilitation skills, here are my recommendations:

- Become familiar with how health shows up, is present, and feels in the body, especially on an energetic and vibrational level.
- Develop fluency in autonomic nervous system states connected with social engagement, sympathetic and parasympathetic aspects of the nervous system, stress and threat responses, and how to shift and integrate stuck states in clients.
- Become trauma-informed.
- Learn tracking skills for somatic responses to stress and threat, and the preconception, prenatal, birth, and after-birth experiences that can be traumatic for families, including babies.
- Recognize states of presence, relatedness, qualities of listening, nuances of inquiry (what questions to ask when), and how to employ all these when helping clients resolve traumatic, looping experiences.
- Work on your own earliest traumas to build the capacity to be present with the earliest trauma. That way, practitioners will be experienced in the territory of early wounding. The adult, family, or baby working with such a practitioner will feel their strength and capacity, and knowing that creates a field of trust.

Conclusions and New Horizons

A new age is dawning for professionals who have spent decades studying, learning, and applying theory and skills to work with the earliest layers of experience. The decade of the 2020s brings more awareness to somatic practices used for prenatal and perinatal healing, including combining movement therapies such as Continuum, Body-Mind Centering, and Feldenkrais with family constellations, bodywork, trauma therapies such as Somatic Experiencing©, psychomotor psychotherapy, Hakomi, and so many other approaches that are now broadening to include this full spectrum, body-mind approach.

Many PPN pioneers have helped this field of practice grow over the last hundred years. Now, the therapeutic space in many modalities is widening to include the baby's experience. We no longer have to brace against disbelief that the baby has experiences that are remembered because of the acceptance of somatics in therapy. As Bessel van Der Kolk (2104) has said, the body keeps the score that began before conception. The score has accumulated by the time anyone is a year old; the prenatal and perinatal periods are formative and can create a template for interaction, perception, and worldview that lasts a lifetime. With support, the richness of this formative time attends to and provides the foundation for our purpose here on earth. The future of prenatal care may include awareness of the genetic disposition of the pregnant couple, their traumas and strengths, prenatal care and birthing practices suited to them, and qualified professionals present for care after birth. Prenatal and perinatal somatics can mediate the earliest experiences so that families can thrive after challenges during this time, and children and adults do not have to carry the burden of painful ruptures. Our earliest layers can be healed; as mentioned previously, it is never too late.

■ ■ ■

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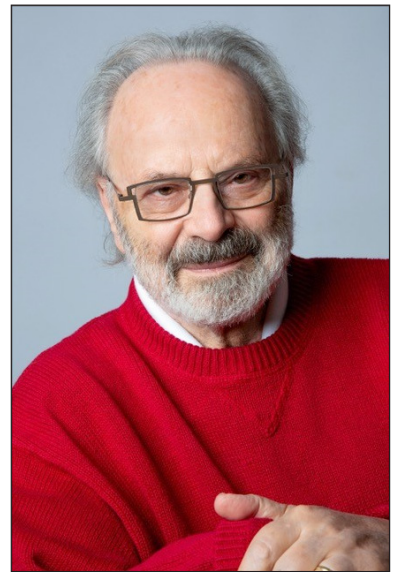
The Origins and Growth of Prenatal and Perinatal Psychology in North America

A Conversation with Thomas Verny

Kate White



"So if they (children) are not traumatized, if they are loved, instead of traumatized, if the mother and father take care of their children right from conception on, then we can have a chance at a better world because children who are loved will be peaceful, and children who are violated will violate the environment."

— Thomas Verny

Thomas Verny, M.D., DHLT (Hon.), D.Psych., FRCPC, FAPA is the co-founder of the Association for Prenatal and Perinatal Psychology and Health (APPPAH). His career, books, and articles, leave a lasting and important legacy for the field of somatics and birth psychology.

This conversation with Kate White, Founding Director of Education for the Association for Prenatal and Perinatal Psychology and Health (APPPAH), and Founder and Director of the Center for Prenatal and Perinatal Programs covers the early days of prenatal and

perinatal psychology in North America, the publication of The Secret Life of the Unborn Child*, and discussions about cellular consciousness along with Verny's most recent book,* The Embodied Mind*. He and Kate White are long-term colleagues, and the ease with which they engage with each other and these topics offers a warm and inspirational introduction for readers new to the subject, as well as a homecoming for experienced enthusiasts of healing earliest trauma.*

Kate: *It's good to be here with you, Thomas Verny.*

Thomas: Thank you, Kate White.

Kate: *We have had a long association doing things together at the Association for Pre- and Perinatal Psychology and Health. We did the Journal together briefly, and I worked at APPPAH for six years. So, it is really good to talk with you today.* I have always, always admired and respected your contributions.

For the people who are coming to hear or read this interview, I would love to have them know you, Thomas. Many people know you as the co-founder of APPPAH with David Chamberlain, but it was your first book, The Secret Life of the Unborn Child*, that put so many things on the map. Would you like to tell people a little bit more about yourself? Then we could talk about your work, your writing, and what you've done to change the world for mothers and babies and families with babies.*

Thomas: It's hard to know where to start. Having worked on pre- and perinatal psychology now for more than 40 years, my immediate impulse is to begin at preconception. But we would need more than an hour to get into that. Let's start with the fact that when I was a young psychiatrist about 45 years ago, I was having a psychotherapy session with a young man, and in the midst of the session, suddenly, he started crying like a little baby.

And he continued like that. I did not interrupt him. I did not ask him any questions. He cried for about 10 minutes. Then he came out of it, so to speak. I asked him what happened, and he said he had just found himself as a baby in a little crib crying for his mother. Then, being a somewhat skeptical young lawyer, he said, "There's something wrong with this picture because I've seen photographs of myself in a crib. And the crib that I just found myself in right now was white. And the photographs that I've seen were always taken in a blue crib. It doesn't quite make sense."

So, I suggested that he go home and speak to his mother. He was a young man; his parents were still alive. He returned the following week for his regular session and said, "You know, this is amazing, but it seems that the first couple months after I was born, my parents did not have enough money to buy me a crib. They borrowed a crib from a neighbor, and that crib was white. Two months later, they bought me my very own crib that was blue, and that's the one that all the pictures were taken in."

So that gave me pause.

I was very well-educated. I attended the University of Toronto and Harvard. We were always taught that children before the age two or three don't remember anything, so this was impossible. It could not happen. But over the next few months, as I became a little bit more aware of the possibility of this, I heard more and more similar stories from other people.

For example, there was a radio interview with a very famous conductor in Canada named Boris Pratt. At the end of the interview, he was asked: "Where do you think your musical career started?" And he immediately answered, without thinking: "It started in the womb." So everybody, of course, was incredibly astonished. This is 45 years ago! The interviewer said, "What do you mean?" He said that he was starting to be a conductor, and sometimes, even before he turned the page, the cello lines would jump out at him. He intuitively knew, without ever having studied that particular score, what the next few notes would be. He went home to his mother, just like in my first case, and told her about that. She said, "Well, what pieces seem so

familiar to you?" He told her which piece seemed particularly familiar. She said, "That's the one I was practicing when I was pregnant with you."

When a few cases and stories like that came together, I began to question whether the accepted wisdom of the ages that children before the age of two or three could not remember anything was incorrect. Then, I told a very well-known obstetrician in Canada about some of these experiences. He shook his head, of course, and said, "Well, you know, next summer in Rome, there is an international conference on psychosomatic obstetrics and gynecology that takes place every four years. It's a huge meeting, and Ronnie Laing, a famous Scottish psychiatrist, will be there." Many, many, very, very famous, well-known people, like anybody who was anybody, were going to be there – except me, who was nobody.

I was very young. I had written one book on group therapy. But apart from that, I was unknown. So, I submitted a paper called *The Psychic Life of the Unborn Child*. To my absolute surprise, not only was it accepted, because, as I said, I was unknown, but my presentation was put on the main morning program with all the big names, including Ronnie Laing. I had 20 minutes, and I presented my paper. Towards the end, I could see about 500 or 600 people in the audience. I could see that everybody was really excited; it was palpable. You could feel the excitement, the energy, in the room.

I said, "Well, today at five o'clock, when all these lectures are over, if anybody wants to come and talk more about this with me, please come to my room." I told them my room number. Well, five o'clock came, and there was a long lineup of people trying to get in.

Kate: *Wow.*

Thomas: Exactly. I got to know some of these very important people. After the meeting, I wrote down their names. When I returned to Toronto, I started corresponding with them, continuing our conversation. I could see from their responses and from some of the evidence, studies, and research I was collecting from them that there was a book in this. So that's when I decided to write *The Secret Life of the Unborn Child*. It was picked up in New York, and 15 publishers were eager to print it.

Kate: *Wow. That's a great story.*

Thomas: It was, Kate. It was absolutely amazing. I went to New York, and every hour on the hour, I had an appointment with a different publisher.

Kate: *That's so exciting.*

Thomas: I would jump into a cab, go to the next publisher, go to the washroom, wash my face, try to refresh myself, and go in. Essentially, they were interested in whether I could talk like I'm talking to you now. Could I speak freely on television? Because at that time, television was really big. They liked it as long as I could put two words together and make some sense. I guess they liked my beard and my accent, you know, like a typical psychiatrist.

Kate: *I guess you needed a pipe.*

Thomas: Yeah, I had a pipe.

Then, they started bidding on the book. I must say, that was one of the most exciting periods of my life. I would be in my office in Toronto, and my agent would call me every two or three hours and say, "We have ten thousand dollars from this and this publisher. Now we have twelve thousand dollars from that publisher. Should we accept?"

And so it went.

It got published.

That's how I got to know David Chamberlain, whose name you mentioned. He is a wonderful, wonderful man. Once the book was published, I got to know so many people; they started writing to me. I told David that we should really present our ideas at the American Psychological Association.

And he said fine, being a psychologist. He submitted an abstract for our paper. Of course, it was rejected. So I said to David in a moment of, I don't know, but not thinking, why don't we form our own association?

And he said okay. And so we did.

Kate: *So you did.*

Thomas: Just the two of us – no computers, no money, no association, no support from anybody. Just my secretary, who I had in my office, and a number of people around me, including my wife and some other people. We started planning a big meeting in Toronto. We invited everyone. I advertised in local newspapers.

On the night before the opening of the Congress in Toronto, we had about 100 people registered. I was sick to my stomach, thinking that we would have only 100 people because the expenses were huge. A hundred people would not cover it.

And I was paying for it all out of my own pocket because there was no association. So it was just me financing the whole thing. Then, I went to the University of Toronto, where the meeting was to take place. I saw a long lineup of people trying to buy tickets. We ended up with something like 500 people.

Kate: *What a great story.*

Thomas: That was the beginning.

Kate: *I love this! I love hearing about the beginning, and* The Secret Life of the Unborn Child*. Your book was published in 1983, and I created the Education Department at APPPAH in 2013. And your book is still current!*

Thomas: Oh, it's still selling. It has just now been published in Slovak and Czech, and I think it will be published in Russia this year. So far, it's been published in 35 countries.

Kate: *You've written others. If I remember correctly, you wrote a prenatal communication book on prenatal parenting.*

Thomas: I've published eight books.

Kate: *You have many presentations that are well-known for how well-documented they are, and for how you focus on the underlying science. That's one of the things I loved about APPPAH and you and David Chamberlain. David was also great at footnoting. I would go through your articles to make sure, because I also love that. Your work is still current and still applicable if anybody really wants to investigate it.*

Thomas: That's right. *The Secret Life of the Unborn Child* is very easy to read. That's the thing that people really like about my writing, that it's very accessible. I always put myself in the position of the reader rather than the writer. And I ask myself, is this clear?

Kate: *A person who does not have a university education and is not an academic can still understand it.*

Thomas: I also like to bring in a lot of case material to make it come alive.

Kate: *I've read everything you've written, at least that I know of, even some of the chapters in textbooks. I attend your talks. You always have wonderful materials. You're a very popular speaker, and it is fun to watch you be so honored.*

So, for those people reading this interview who are not involved with pre- or perinatal psychology, what we know is that the baby receives information. It has a way of coming in, whether it's through the cello like you're saying, the music, or that memories can be generated from their time in utero during birth and after birth. You're saying that these memories have lifelong implications on how we develop. And my goodness, science has come a long way.

Thomas: Yes.

Kate: *It is so wonderful to support all these things and see that the field is really changing and accepting that babies have experiences and that they remember them. One of my favorite quotes of yours, Thomas, is, "I used to duck pies, and now they serve me pie."*

Thomas: Did I say that? That's good. I like that.

Kate: *So our time really has come for those of us who love this field the way we do. It has come of age. For those body psychotherapists who are curious about the implications of earliest trauma, let's talk about what we are taught and what we can teach about these early layers of experience. What, in your opinion, are we talking about when we say "early memories?" How would you summarize if you could?*

Thomas: Well, my answer is layered because there are several answers to that question, depending on which lens and terms you use.

If you are looking at it psychologically, what people remember consciously, or what they can get in touch with unconsciously, then, of course, the important thing is that everything that the child experiences from the end of the second trimester on – and I will go back to that in a second – is remembered, it's inscribed in their memory banks. Just because they can't remember doesn't mean it didn't happen. It doesn't mean that it doesn't exert a certain gravitational pull on everything they do for the rest of their lives. This is what we have to

keep in mind: just because you can ask a child what they remember about their birth, and they say nothing doesn't mean that they don't remember it on some other level.

Kate: *Right.*

Thomas: In fact, we know they can remember birth in many different ways. For example, without any drugs or hypnosis, there have been many, many instances where mothers have reported that when they bathed their two-and-a-half or three-and-a-half-year-old child, and the child was relaxing in nice warm water, and she asked without pressure, "What do you remember about your birth?" Suddenly, a whole flow of information comes out, and they say things like,

"It was cold."

"I could move."

"Suddenly, I could move. I was no longer somehow bound in something."

Stuff like that, they will tell you.

Kate: *Yes.*

Thomas: Obviously, these children know what happened to them. But what does that mean in terms of body therapy? Well, the mode of birth, for example, is very important in terms of leaving behind what one might call psychosomatic imprints. If, for example, a child is born naturally, without drugs, without forceps, just a natural childbirth, that child goes through the birth canal. She or he will get the best massage that he or she will ever get. The baby will come out on its own and feel on some level that he or she is a very competent human being, like:

"I could do this on my own."

"I'm terrific."

"This is a great world."

"I like it."

It's a whole different attitude toward life and your body. As you go through the birth canal, every part of your skin is massaged and touched, so you are very much in touch with what's happening to your body.

On the other hand, let's compare that to a forceps delivery, which I did, unfortunately, when I was studying and spent time in the obstetrical ward of a general hospital. I delivered 27 babies. I think every one of them was with forceps. When you deliver a child with forceps, you put an incredible amount of pressure on their head. So these children, when under stress, will develop pains in the neck and shoulder region. They will also have the feeling "I can't do this on my own. I need help."

That kind of message is even more pronounced when someone is born via cesarean section because, in that procedure, one of the very important things that happens is that the child does not pick up lactobacilli, which are in the maternal vagina. They do not pick up lactobacilli, so they will have trouble digesting maternal milk because that child needs the lactobacilli.

Also, very often, in cesarean sections, the child gets stuck going down the birth canal. For that reason, the obstetrician and gynecologist will then do a C-section. That child has a very different experience, very different memories about being stuck and not being able to make it on their own. They will carry that in their bodies and in their minds.

It all goes together.

So, after writing *The Secret Life of the Unborn Child* and traveling the world talking about it, one of the things that always bothered me was the fact that I met people who could remember things before the second trimester.

I mean, all the way back to conception.

Kate: *Wow.*

Thomas: I had a patient, so help me God, this is the truth! In one of his sessions, he went back to conception. He could feel his mother not wanting to have anything to do with his father, while his father was trying to have sexual relations with her. The father was drunk. At one point, this man, who was in his 50s, could feel his mother's thoughts and feelings of rejecting the father: "I don't want to have anything to do with this man." The next moment, he could sort of feel the violence of his father, who just wanted to have his way. The psychological problem that brought this man to me for therapy was that he was so ambivalent.

Everything was ambivalence. He couldn't make up his mind, left or right. And so, having this primal experience of conception really helped him understand his ambivalence because he could feel his mother's ambivalence and how it affected the rest of his life.

"But what about before six months? How could children, whose central nervous system was obviously not adequately developed to lay down memories, possibly remember things?"

Kate: *Right.*

Thomas: Stories like that always bothered me because when I wrote *The Secret Life of the Unborn Child*, and for many years after, I had absolutely no doubt that the science was there to support the fact that six months after conception, a child had the biological substrate for laying down memories – primitive memories of feelings and thoughts – but memories.

There's research on that. But what about *before* six months? How could children, whose central nervous system was obviously not adequately developed to lay down memories, possibly remember things?

I was in this state of doubt until about 10 years ago when I came across a paper in one of the medical journals. Actually, it was in *The Lancet*. There are only two Bibles for medical doctors in terms of journals – *The Lancet* and the *New England Journal of Medicine*. Anything written in either is the word of God!

In this 2007 issue of *The Lancet*, there was a paper by a French doctor by the name of Lionel Fillet, who described a 40-year-old French man who came to see him because of a weakness in his left leg. They did all kinds of lab tests, as well as a skull x-ray. To everybody's astonishment, this man had virtually no brain. Where the brain was supposed to be, there was only water and cerebrospinal fluid. He had a thin crescent of brain tissue and that was it. No cerebral cortex on either side.

Yet this man was employed in the French Civil Service–whatever that says about the French Civil Service! He was probably not any better or worse than other civil servants. So he was gainfully employed, the father of two children, and he scored 75 on an IQ test, which is below average but still functioning.

Kate: *For no brain, that's amazing.*

Thomas: Exactly. How is this possible? How is it possible that a man without a brain could still function fairly well? He was gainfully employed, married, and had two children. He was well-dressed. He went to the doctor on his own. How is this possible?

That's when I began doing research on people who were missing a brain as a result of accidents or very bad cases of epilepsy. Both children and adults sometimes have parts of their brains removed.

As I did more research, I concluded that the only way to explain how this man functioned was to accept the fact that his brain had some kind of backup system.

And the backup system, well, had to be below the neck.

It had to be the rest of the body.

I started looking into cellular consciousness and cellular memory and what our cells can do.

Very simply, what I came up with was that all the cells in the body form a network. All the cells, tissues, and organs form a network, just like the Internet. And when they work together, they are able to have a mind and a brain, so to speak, that supports the main brain in the skull. So, instead of having an "unskulled" mind, I've come to the conclusion that we have an embodied mind – that the whole body, the brain, neck, heart, and all the rest, have to work together in order to have a well-functioning human being.

Kate: *I loved reading that in your book. You showed me your article about how memory happens before it was published. I've made it part of the education department at APPPAH, and very simply chunked it down so that people can get a sense of your theory of this holistic body-mind memory. So, we have all this anatomy, but we also have this vibrating network of cells and cellular memory.*

I also love how you conduct all the research on the sea snail and the other award-winning research that has led to the notion that we remember our earliest lives and that our memories are in our bodies.

Thomas: Exactly.

Kate: *And that's why body therapists can be so successful, because memories are also in our bodies.*

Thomas: Yes.

Kate: *In the book, in the chapter you gave me, you stated that memories are in the nucleus of neurons. Could you explain that a bit more?*

Thomas: Well, they are in the nucleus, but they may be in other parts of the cell, as well as in it's membrane – the outside of the cell. Structures in the cell may also contain memories; there are different hypotheses about where memory could reside.

Kate: *The cellular membrane is definitely something that our friend Bruce Lipton talks about. He has written about epigenetics.*

Thomas: Bruce Lipton writes a lot about that. He writes about the cell membrane as the brain of the cell. That's one way of looking at it. But I think that's just one part of the brain of the cell. There are other structures in the cell itself and in the nucleus, which, of course, contain DNA. So, DNA in every cell has the blueprint for what that particular cell is supposed to do, and it's incredibly complex.

Yet, a cell is so small that you cannot see it with the naked eye. In our culture, we admire things that are large and kind of deprecate things that are small. Cells are incredibly small, but they are incredibly complex little machines. When you study cells, a whole new world opens up to you. Cells have little organelles – I think about 33 little organelles, which are tiny, tiny replicas of the organs in our bodies. For example, we have lungs, and the cells have mitochondria in charge of energy, providing energy for all the work the cell has to do. The cell has to produce proteins. It's just incredibly complicated.

There's absolutely no reason why cells could not contain other memories. One of the best examples, of course, is heart transplants. The literature describes the fact that heart transplants often change their recipients' personalities and they assume the personalities of their donors. I have some very good descriptions of that in my book. There's much more, of course, in the literature.

The only way to explain this is that in the transfer of cells, there is also a transfer of memories from the donor to the recipient.

There's no other explanation.

Kate: *That's interesting. I know our cells die off and we reproduce them. We replace them. Different parts of the body run on different schedules. Brain cells, for example, reinvent themselves less often than cells in the gut. Although there are differences between different tissues, they all renew themselves. The memories, though, are retained.*

Thomas: Exactly.

Kate: *How does that happen?*

Thomas: I have no idea. I really don't know. There are still a lot of unanswered questions. And I think we are probably just scratching the surface.

Kate: *I agree.*

Thomas: There's so much interesting new research coming out. However, the problem is that very few people are aware of this new research. DNA can now be found in thin air, in tiny fragments from long-deceased people who have walked through a forest.

Aaron Murphy, a law professor at New York University School of Law who specializes in new technologies used by police in the criminal legal system, says that new DNA collection techniques are 'like catnip' for law enforcement officials. The police have been quick to embrace unproven tools like DNA to create probability-based sketches of suspects. But what is really important is that technological advancements allow for more information to be gathered from even smaller DNA samples, which have been collected in meadows and forests from individuals who have passed through. They may long be deceased, but some of their DNA has stuck to the leaves and fibers. The results of this research were published in the journal *Nature Ecology and Evolution*. Now, how many neurologists read that kind of stuff?

Kate: *Hardly anyone.*

Thomas: The research demonstrates that scientists can recover medical and ancestry information from minute fragments of human DNA lingering in the environment. Now, isn't that amazing?

Kate: *The science is amazing. We know so much more now about how we come into form, how our environments inform our bodies as we make them in utero, the transgenerational, intergenerational inheritances we carry, and the fact that it matters how we are born and how we're received.*

The early roots of health and disease, if you want to use that word, are all here. Body psychotherapists, or any clinicians, can take a birth history and get a better sense of who is sitting in front of them.

Thomas: Yes.

Kate: *I've had the opportunity to network with brain researchers about two topics of great interest to me: the fetal brain and the placenta. Advances in prenatal care aim to predict genetic sensitivities to chemicals and early interventions, helping parents understand what to expect. I also stay updated on neuroplasticity and healing, particularly for addressing early traumas, as research in this area becomes increasingly sophisticated.*

Thomas: By the way, I hate the expression neuroplasticity.

Kate: *You do? Tell me why.*

Thomas: For a second, think of plastics. They're hard. They don't change.

Kate: *Okay.*

Thomas: Now, think of a cell; think of a neuron. It can do thousands of different things.

Kate: *That's true.*

Thomas: It's not plastic. It has an incredible potential for change. *It's not plastic!* That's the last thing it is., Someone came up with this nice little word, neuroplasticity, and since then, everyone has accepted it without question. It's nonsensical. It's the wrong word.

It's so, so, *so* wrong because it doesn't tell you anything about our huge potential, our huge intelligence. Right?

Kate: *Yes, yes.*

Thomas: Plastic is dead. It is not living. It cannot change. It cannot think.

Kate: *Well, let's call it neurofluidity.*

Thomas: There you go. A new word that we actually coined here on this day. On this day, June 3, 2024.

Kate: *Neurofluidity.*

Thomas: Absolutely.

Kate: *Neuropotential.*

Thomas: Well, that's a good word, too!

Kate: *Thomas, let's complete our interview by discussing your book further. It's wonderful for those of you who need data, science, and a way or a place to stand when working with systems, organizations, or even your own clients.*

I particularly would like to talk about consciousness. You told me that the chapter you wrote on quantum mechanics or quantum biology was a real challenge for you. I read it, and it resonated with me. When I teach students who are learning to work with birth trauma, because that's what I mostly do now, is to help them understand.

I discuss the concept of the vibrating network and how memories are stored within it. At the same time, I explore consciousness. For example, when we recall our birth or our conception, our consciousness, it raises profound questions about how we come into form, who we are within our bodies, and how we can start to document that, and talk about it in scientific and medical settings, but it's much more esoteric.

I would love to hear what you think about consciousness in the body.

Thomas: Well, one of the main things I concluded was that, just like I'm opposed to the expression neuroplasticity, neurologists and philosophers, or anyone dealing with consciousness, use the phrase "the mind and consciousness."

The two are often equated and seen as epiphenomena. That's a big word for function. The mind and consciousness are seen as a function of the brain. Just as urine is a function of the kidneys, the mind, or consciousness, is a function of the brain. Again, all you have to do is pause and think about that, and it doesn't make sense. Surely, mind and consciousness cannot be equated with urine.

Kate: *Right.*

Thomas: Urine, you can see and smell; you can do experiments with it; you can find out its bacterial contents and chemical components. You cannot do any of that with the mind or consciousness.

Kate: *Okay.*

Thomas: These words are abstractions. To say that the mind is a function of the brain does not make any sense. I see the mind and consciousness, and we'll come to a differentiation between the two as being the result of every cell in your body, including the brain – but not just the brain – working together to provide us with what we call mind and consciousness.

Consciousness is a little easier to define than mind. Consciousness simply means that we know who we are at this moment. I mean, I think that's probably the simplest way. I know that as I sit here at the desk talking to you, I am conscious.

Kate: *Fine.*

Thomas: When we are anesthetized, for example, we are unconscious. But that doesn't mean that we are mindless because our mind is still working. So if someone, for example, says, "Oops, I think I've just cut the main artery in her neck, the blood pressure of the person under anesthesia is going to go through the roof. Although she may be unconscious, the mind is still vigilant, still paying attention.

So, I think the mind never sleeps. And the mind is a product of every cell in our body.

I wrestled with this for months, and I read hundreds of articles and books on the topic. And there are just so many different opinions about the mind and consciousness. What seems to be very popular now is the fact that consciousness is considered to be like gravity. It's like one of the main features of our universe. It's like an energy field out there, and we're a little part of it.

I don't know about that. I am not a religious person. If you are religious, it's easy to say that God gives us consciousness. I don't know. Maybe, maybe not.

So I see consciousness and the mind being connected, and a product or outcome of all the cells in our bodies working together and giving us this sense of being who we are.

Now, the other thing that I wrestled with in that chapter, and that's part of the problem, is free will.

Kate: *Yes, I remember.*

Thomas: And so, if you are a materialist, and if you are a true scientist in the 21st-century mode of being scientific, then you really have to believe that everything is caused by something else.

Like vbnjkopnothing happens on its own. Nothing happens by chance.

If I knew all the factors that went into my conception, that went into my nine months of pregnancy, for example, I could predict with absolute certainty what I'm going to do in the next moment. In other words, there is no free will. In a materialist universe, there is no free will.

Everything is predetermined by what happened before. And if we knew, which of course is impossible, but if we knew all the factors that went into my being, and every person that I've ever encountered, and everything that I ever read, we could predict what I'm going to say in the next moment.

Kate: *Right.*

Thomas: Okay. So, that is the view of materialist science. That's where I brought in quantum mechanics and quantum physics because there is a factor of unpredictability in quantum mechanics and quantum physics. In science, all we can talk about are probabilities rather than certainties.

Kate: *Right.*

Thomas: And the other thing that's very interesting about quantum science is that when you have two particles that at one time were connected and somehow became disconnected, it's called superimposition. When you have two such particles, they could be thousands of miles apart. But if one of them turns one way, the other one will instantly turn the opposite way.

Whatever happens to one will affect the other much faster than the speed of light, which, according to Einstein, cannot happen. And since then, it has been universally accepted as scientific truth.

So once again, you know, we are confronted by something that science says cannot happen, but it is happening. It's there. It has been measured. This is not up for debate. It has been measured. This is not someone's crazy idea, certainly not mine. It has

been measured, and it cannot be explained. There is no good explanation for it.

When we look at quantum mechanics, it explains very well things that happen on a microscopic level, at a very, very small level. It seems that the physics of Einstein and all the other standard mathematicians and scientists work very well at the macroscopic level, at a large level. At the microscopic level, quantum physics works very well.

Since we are dealing with cells at a microscopic level, it seems to make sense to posit that they may be following the principles of quantum mechanics rather than the physical rules of materialism.

I think that's somehow where the mind, consciousness, and free will come in – at the cellular level. That's how I see it.

Kate: *Thank you, Thomas. I read the science also, and I love the medical world. And they've gotten so much more detailed and granular about how we understand the body.*

Thomas: Yes, yes.

Kate: *What they consistently say is that there are mysteries still afoot.*

Thomas: Yes.

Kate: *We try so hard to define all these things in our human world, and yet mysteries are still here. And that's part of the joy of being human, so we can trust into some greater mystery. As John Chitty, one of my teachers, would say, "Greater forces are at work here."*

Thomas: Yes, yes.

Kate: *So we are these conscious beings; our consciousness is in our bodies. If you could bring someone to be more conscious about their patterns and their lives, then they can be more intentional and have more happiness, which is what we all want.*

Thomas: Absolutely, absolutely.

Kate: *And more in control of their lives, right?*

Thomas: Yes, not so much at the whim of these early memories or even our lifelong challenges to have more consciousness. The traumas and stresses that we have all suffered, you know, are not through any failures on our part; they are not our fault.

Kate: *Right. But it's life, right?*

Thomas: It is life.

Kate: *Well, just before we complete here, Thomas, I'd like to ask how you see the future for our field of pre- and perinatal practice, and also for humanity.*

Thomas: Well, it's hard to be positive at this moment in time when there is so much trauma all around us in the world. Right?

Kate: *Yes.*

Thomas: I mean, everywhere you look, there is suffering. People are dying in every corner of the world. And even here in North America, one of the richest places in the world, there are homeless people on the street; there are children dying of hunger and malnutrition.

We are going through some pretty difficult times, but it seems to me that the world has done this before. There seems to be some kind of repetition of patterns where, for a while, there is contraction, like in the Dark Ages. Then came the Renaissance, and everything came to light and to life. And then again, you know, there is a withdrawal.

So there is kind of a sine wave up and down, up and down.

I think we are in a downward spiral right now, but hopefully, we can come out of it.

One way that we could have a chance of coming out of it is by making sure that our children are conceived in love, that they are carried for nine months in the body of a loving mother, and that they are born into the hands and arms of loving parents. You know, loved children will be good shepherds of this intention.

And unloved children have in some ways been traumatized in the womb, perhaps because their mother or father were drinking too much or taking too many recreational drugs, or any of those things that can be incredibly bad for the unborn child.

Physically and psychologically, they will not be born the way that they were supposed to.

So if they are not traumatized, if they are loved instead of traumatized, if the mother and father take care of their children from conception onwards, then we can have a chance at a better world because children who are loved will be peaceful, and children who are violated will violate the environment.

Kate: *Yes. Well, thank you, Thomas. Thank you for your time today, and thank you for this interview.*

Thomas: Thank you, Kate, and good luck to you in all the important work that you do.

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Nesting as Imprint of Bonding and Attachment

A Phenomenological Exploration of Healing Gestures in Prenatal and Birth Process

Kate White, Jaap van der Wal

ABSTRACT

This paper explores the phenomenology of nesting of the human embryo in the uterine lining as a gesture in early development. Historically, nesting has been described as "implantation." This paper describes "nidation" as an alternative to "implantation." Phenomenologically, these two gestures can be described in metaphors of war versus conversation. Van der Wal describes the gestures morphologically and embryologically, and gives interpretations through his unique Goethean perspective. White follows his exploration of how these early gestures are seen in prenatal and perinatal somatics, focusing on how practitioners can work with them to heal earliest trauma or how they reveal inherent health. Taken together, the perspectives of Van der Wal and White create an additional therapeutic choice for practitioners who work with these earliest layers of experience.

Keywords: phenomenology, prenatal and perinatal somatics, birth psychology, nidation, implantation, embryology

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> ***...how does awareness occur if the embryo/fetus has only primordial brain development?***

Nesting: More than a Morphological or Embryological Process?

In this paper, we address the use of two terms that express the phenomenon of nesting of the human embryo in the therapeutic prenatal and perinatal process, as well as their gestures and developmental impact: *nidation* and *implantation*. The term *nidation* indicates a natural progression we have observed in embryological and morphological processes whereby the embryo hatches and gently comes into contact with the mother.[1] The term *implantation* is commonly employed in prenatal trauma therapy, and is used in textbooks on human embryology. It is described as a survival strategy

1. In this paper, we use the term "mother" to indicate the gestational parent, and will use "she/her" pronouns.

"The basic premise of prenatal therapy is that the prenatal human being (both embryo and fetus) has experience and awareness of what happens during it's intrauterine growth and development."

of the conceptus where it "invades" the endometrium. Both descriptive expressions of nesting are relevant for birth psychology. However, until today, there has been no teaching or embracing of a healthy nesting connection of the parent and conceptus in prenatal and birth therapy that accurately describes a healthy embryological bonding and attachment. We observe that nesting is described only as implantation and is assessed by the gesture of burrowing into the uterine wall with the forehead. Nidation is much gentler, and connotes receptivity on the part of the parent, and trust on the part of the embryo as energetic gestures where the embryo's action is to come into relationship with their backside, with the mother (uterine lining) spooning with them. We are excited to add this action of receptivity and trust to the therapeutic lexicon and seek to include nidation and implantation as therapeutic options when working with early experiences. In some embryology textbooks, the phase before the actual nidation/implantation, in which mother and conceptus interact biochemically with each other in preparation for the actual nesting, is called ad-plantation.

Nidation (or implantation) is the process by which a few days-old human embryo (approximately between 3.4 and 6.7 days) implants into/connects with the lining (endometrium) of the woman's uterus. Normal development during this vital sequence includes the hatching of the embryo, now grown to a sophisticated cellular matrix of a *blastocyst*, that makes contact with the uterine lining and makes a home there. The new being must find nutrients to survive and also encounters the mother's immune system. So, it is a vital time and a period in which many new beings do not survive. However, successful nesting, which will be described later in this paper, includes making a home in the uterus, sinking into the uterine wall to differentiate cells, making protection (amnion) and nourishment (yolk sac), and then creating the placenta to connect with the parent's blood to continue their life journey.

In Assisted Reproductive Technology (ART) and/or artificial fertilization techniques (in vitro fertilization or IVF, and/or intracytoplasmic sperm injection or ICSI), the sufficiently grown and matured embryo of about one week is returned to the uterus through a procedure called embryo transfer (ET). It is assumed that this transfer will be followed by the acceptance of the embryo by the mother's body, thus enabling the embryo to nest in the endometrium. However, this embryo transfer is still risky in assisted reproductive techniques; the current success rate of these techniques is almost entirely determined by the pass rate in which the embryo can nest successfully. It is believed that under "normal" conditions, only 60% of successful human conceptions successfully implant in the endometrium (Krause, 2022; Jarvis, 2020).

Subsequently, in early human embryonic development, another crucial moment occurs when a significant percentage of embryos again fail to continue development. This phenomenon of human embryo individuation occurs around the third week and is associated with the formation of the primitive streak and third germinal layer (*gastrulation*). Add to this the fact that only a limited percentage of human conceptions are biologically successful in vivo, and it is evident that the question arises about the efficiency of human reproduction for many people. The nesting process is a developmental crisis or threshold moment that could be the source of psychological disturbance if the nidation does not occur problem-free. If nesting occurs straightforwardly, it is the moment of healthy bonding and attachment, and an early healthy marker of the relationship. If implantation is challenging, it is likely due to various physiological reasons that are impersonal, yet parents and babies take them very seriously. These patterns will be explored toward the end of the paper.

The current article is the joint performance of an embryologist and a prenatal therapist. The basic premise of prenatal therapy is that the prenatal hu-

man being (embryo and fetus) has experience and awareness of what happens during its intrauterine growth and development. Without this premise, prenatal treatment and counseling in later life about prenatal events that may be experienced as unpleasant loses all ground. On the other hand, the embryologist provides insight into the physical and morphological substrate of an embryo's prenatal existence. In recent decades, this branch of science has been repeatedly questioned about the possibility of consciousness and experience before birth. For example, how does awareness occur if the embryo/fetus has only primordial brain development? In the second and third trimesters of human pregnancy, it is plausible that primitive nerve and brain substrate are physiologically active, and so, there could be perception, awareness, and experience, albeit in rudimentary form. The latter, however, is doubted by many morphologists and psychologists as far as the first semester is concerned, when there is still an embryo, which is considered to be brainless, and thus unconscious. Therefore soul, or consciousness and experience, should be excluded at this stage.

This issue of possible consciousness or non-consciousness often plays a role in discussions about the time limit for abortion. Consequently, many believe that in early human embryonic states, some form of not yet fully functioning human consciousness and experience must exist. On the other hand, many practicing therapists in the field perceive that some children must have had obvious traumatic experiences at the time of important thresholds and moments in their prenatal development, such as their nidation/implantation. Thus, there is a philosophical dichotomy in this context. This article aims to build a possible bridge between the two regarding nidation and implantation.

The embryologist who co-authored this article represents a less common approach to embryology and morphology, namely that of (Goethean) phenomenology (Bortoft, 1996; Zajonc, 1998). Phenomenology is a methodological scientific approach that continues to influence psychology and psychiatry alongside the usual causal approach. For example, in psychiatric treatment and analysis, it is acceptable to enter the patient's experience and perception without having to search for the cause of the biographic disturbance or trauma involved in the particular case. Even without knowing or being able to analyze what caused a traumatic personality disorder deeply, one can still properly treat and support the patient in learning how to live, or cope with, the bug in his or her personal experience.

In biology, however, the phenomenological method is less recognized, and much less applied in the search for the **meaning** of the morphological phenomena in question. In Goethean phenomenology, the researcher (in this case, the morphologist and embryologist) is looking not only to explain the formation processes at play but is more concerned with **understanding** and comprehending **the form**. The response to the question "Why does it look like that?", which is, after all, the fundamental question of the morphologist, shifts from "**because of**" (e.g., which tissue processes or gene codes could explain the process in question) to "**what purpose**" (what is expressed in the form and form process in question; in short, what does it mean?).

The dichotomy indicated here is directly related to the pre-scientific view of the researcher regarding the existence of, or relationship between, mind **and** body. For many therapists, psychologists, and psychiatrists, the mind (often referred to as consciousness, which is a *pars pro toto*) is an activity and, thus, a product of the brain and is therefore considered a bodily process. For others, the mind is a non-bodily realm, an experience of so-called first-person reality, which manifests itself in prenatal development in the formation of the body, including such subprocesses as the wiring and architectural networking of the brain. In *The Embodied Mind*, psychiatrist Thomas Verny (2023) shows that nothing about the known morphological processes in the body during prenatal development stands in the way of seeing embodiment as an active process or dimension that manifests and expresses itself in the body's formative processes. These include the formative processes of the brain, and are therefore not exclusively brain-associated. To paraphrase the philosopher Rumi (Mewlana Jalaluddin Rumi, 1207-1273) on this occasion: "The body developed out of us, not the other way around" and "We created the body, cell by cell we created it," one could state: "We created the brain and nervous system and its wiring, nucleus by nucleus, nerve by nerve, we created it" (All Poetry, 2024). This approach is theoretically in line with the concepts of human embryologist Erich Blechschmidt (1904-1992), who, already in the 1960s, did not interpret the formation processes (morphogenesis) of the hu-

man body as being caused by something like cells and genes, but instead saw these processes as an expression of the human psychosomatic organism. According to Blechschmidt, no action could ever be performed physiologically or psychologically in later life cycles if this action or operation had not first been pre-exercised during the morphological process (body formation) (Blechschmidt, 2012). Soul or psyche, Blechschmidt interpreted, are not gradually added to the body during prenatal development; instead, we are from the very beginning a being of what could be now termed mind and body, and the primary activity of the mind is body formation (Van Der Wal et al., 2017), which is also referred to as the embodied or embodying mind (Menzam-Sills, 2021; Verny, 2023). The English psychiatrist R. D. Laing can be cited: "Is it possible for us cells, before and after the formation of neural tissue in particular, to reproduce in later phases of the lifecycle transformations or variations of our first experiences? Can our prenatal patterns of experience function as templates for some of our patterns woven into the complex knit of postnatal design?" (Laing, 1976).

For the phenomenological morphologist, here lies the possibility of interpreting the forms and processes of formation in the human body as **behavior**, or as a somatic language. Behavior can be interpreted as **gesture**, a form, or a morphological process with a certain sense and meaning. As seen in Goethean phenomenology, the gesture is thus a transdisciplinary category because it can manifest morphologically, physiologically, psychologically, and probably mentally and socially. For example, the formation of arms and hands can be seen as a gesture in which first embracing and reaching out are pre-exercised morphologically in the formation process, making it possible for the same embracing and reaching out to be performed physiologically later in life. We can extend this model of performance to ask if the gestures of embracing something or reaching out to someone are also psychological gestures and skills.

Another example is bonding and attachment. These are, of course, biological and psychological phenomena at first glance. But does the newborn not have to be unbonded in order to be able to connect all the more intensely with the mother physically, for example, in the gesture of coming home to the mother's breast? Perhaps such fundamental soul processes as bonding and attachment are morphologically pre-exercised during an earlier phase of prenatal development.

This brings us to the topic of nesting or nidation. This article will attempt to describe nesting phenomenologically as a gesture of attachment and bonding, with the proposition that nesting is more than just a morphological or biochemical process, but actually can be described as a gesture of interaction that lays the groundwork for subsequent physiological, psychological, and possibly even sociological manifestations of the phenomenon, i.e., a gesture of attachment and bonding. So, in this article, the embryologist will first describe nesting as a kind of physical process of bonding, and the therapeutic co-author will then explore how any failure or dysfunction of biological/morphological attachment may manifest itself in dissociated behaviors of the young child and, perhaps, even adults.

Nidation as Morphological Gesture: War or Conversation?

Nidation, or nesting, occurs at the moment when the human embryo attaches itself to the lining of the uterus or endometrium. This is also the moment when physiological pregnancy begins. Usually, the average time of nidation is five to seven days after conception, but still, there is no definite time frame for implantation. It can probably occur as early as the third day of human development and, at the other extreme, is sometimes assumed to occur as late as eight to nine days. The human embryo must be at the *blastocyst* stage for implantation to occur correctly. In the embryo, the first important differentiation of cells has taken place, forming a central group of about eight to 10 cells (called the *embryoblast* or *inner cell mass* ICM), surrounded by a mantle of about 100 to 120 cells that form the *trophoblast*. This trophoblast will later develop into the placenta and membranes of the prenatal body. Between the two groups of cells, there is a first primitive body cavity called the *blastocoel*. See diagram (Figure 1). The whole consists of about 100 to 150 cells.

The *trophoblast* or outer sheath (also called *outer cell mass*) is the substrate of the embryonic body that will interact with the endometrium to achieve nidation in this mucosa. This part of the embryo is often mistakenly referred to as extra-embryonic or as an appendage. In this view, the embryoblast

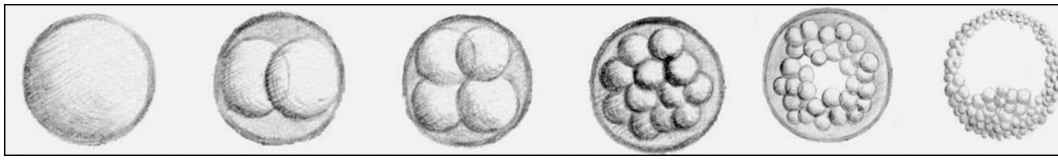

Figure 1. *Human development in the first week. Far left: zygote or unicellular stage; fourth figure: morula stage, multicellular body of eight to 64 cells. Far right: blastula or blastocyst with embryoblast and trophoblast (Source: Appenzeller, 1976)*

is considered the substrate for what is usually later considered the embryo proper. The trophoblast (and the placenta derived from it) is then considered a secondarily added structure, also referred to as adnexa and/or secundinae (Van der Wal, 2007). From a phenomenological perspective, this interpretation is invalid: the six diagrams in Figure 1 represent the complete human embryo or conceptus at each stage and, therefore, the human body. In this view, the blastocyst is not something secondary or added to an actual or proper embryo. The interpretation of these phenomena is immediately related to how one considers the entity brought about by fertilization, i.e., the *zygote*. It is still quite common to consider the zygote a fertilized egg, the product of the fusion of a sperm cell with an egg (Wikipedia, 2024). However, in the phenomenological view of both authors, a zygote is **not a cell**; a zygote is a single-celled **organism**, and therefore genetically and biologically a human body. After a few days, the organism appears as the *blastocyst*, which therefore in this view is not the product of cell multiplication, but the timely appearance of the human embryo, which is now (sub)divided into two categories of cells through the process of differentiation. The phenomenologist sees no reason to speak of a proper embryo with additional embryonic appendages, neither in the blastocyst stage nor in the subsequent embryonic phases.

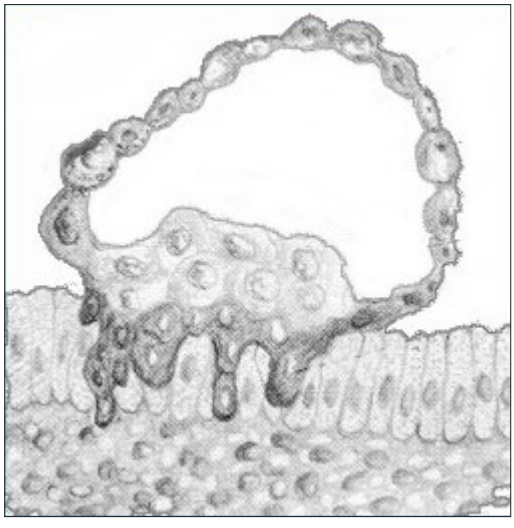

Figure 2. *(Source, Appenzeller, 1976)*

It is beyond the scope of this article to enter into a discussion about zygote as organism or zygote as cell. In our opinion, it is the embryo that will have to implant itself. The trophoblast therefore also belongs to the physicality of the embryo, and is part of the body of experience of the embryo. We realize that this interpretation is a paradigmatic choice, but want to make clear that the assumption that the human embryo is implanting itself does not contradict actual biological facts. When prenatal therapy assumes that nidation can be a moment of experience for the developing human being, it implicitly assumes that the blastocyst **as a whole** is currently the human embryo, and not just the central part of it, namely the embryoblast.

Both the embryoblast and the trophoblast (here, for understandable reasons, these two terms are preferred instead of the terminology of "inner and outer cell mass," which is widely used in embryology today) develop from the morula, the multicellular body that manifests itself after three to four days. The embryoblast is derived from the central part of the morula (the embryonic body at stake), while the trophoblast is derived from the periphery, the outside of it. When a cavity develops in the morula (the *blastocoel*), the embryoblast becomes eccentric (Figure 2).

Thus, embryology textbooks distinguish between the embryonic pole where the embryoblast is situated, and the ab-embryonic pole (Langman, 1995). This gives the embryonic body a basic spatial orientation, also known as the body axis. From the

subsequent differentiations of tissues, the body cavity and organs, it can be deduced that the body axis, which can be conceptualized through the embryonic and ab-embryonic poles of the blastula, morphologically corresponds to what is later regarded anatomically as the *dorso-ventral* axis of the body (Van der Wal, 2002). The embryo is given a back and a front, so to speak. It is clinically known and confirmed that implantation must take place with the embryonic pole facing, and in contact with, the endometrial epithelium. Consider the arrow in Figure 2.

At the border between embryoblast and trophoblast, another body cavity will develop very quickly, more or less in opposition to the blastocoel that appears within the first week of development (see above); this is the future *amniotic cavity*. In this area, connective and vascular tissue will later develop that will provide a connection between the intra-embryonic and extra-embryonic dimensions of the prenatal body, and is usually referred to as the connecting stalk. In this manner, the substrate is formed for what will later be known as the umbilical cord. During the first two to three months of prenatal development, this zone of connection will relatively move or be repositioned to the front ventral side of the so-called embryo proper. This explains the clinically well-known phenomenon that when an embryo implants with the embryonic pole forward, i.e., directed away from the endometrium, the placenta is then directed not towards the uterine wall, but towards the uterine lumen or cavity. Unfortunately, miscarriage and premature birth are inevitable consequences of this disorientation.

To summarize, in the blastocyst, or one-week-old embryo, body orientation first manifests. In view of the later anatomical and morphological relationships in the prenatal body, this orientation can therefore be regarded as a first indication of the *dorso-ventral* body dimension. It should be emphasized that this is a phenomenological finding. Of course, the embryo does not yet have the anatomical body axis, with a belly at the front and a back at the back. To properly understand what is described here, we must realize that the dimensions front and back are more than anatomy, and can also be understood qualitatively.

At our front, we have a completely different orientation and interaction with the world than at our back. Moving forward is phenomenologically of a totally different quality than moving backward. Moving forward usually means moving in a focused way, moving towards something – the goal is in front of us. Moving backward is another quality: one has to let oneself move, more or less in the direction where we are uncertain what will occur. With our back, we have a different relationship or interaction with our environment and the world than with our front.

So, it is suggested here that the embryo has to align itself backward towards the uterine wall, which is towards the mother, in order to nest. In this way, a completely different quality of encounter and interaction between child and mother takes place than if there were a forward implantation into the maternal uterine mucosa. In the former case, there would be a question of letting oneself go backward to the mother and feeling received there, while in the latter case, there would be much more confrontational interaction between mother and child. In phenomenological methodology, this means that one must realize the quality of the gesture with which mother and child meet at the time of implantation. Perhaps this is also related to whether in one case – a forward confrontation – one prefers to speak of implantation, and that in the other case – a backward reception – the term nidation is more appropriate. Meeting: confrontation or dialogue? To make this assessment, it is necessary to consider which kind of biological processes are needed for successful implantation.

What processes take place between the trophoblast and the endometrium? And how relevant is the character of these processes, or gestures, in light of the question backward or forward? It is now generally accepted that the mother, the womb, or (further reduced) the endometrium is not a passive target, nor that the child, the embryo, or (further reduced) the trophoblast is the active substrate in this interaction. It is now common knowledge that selection takes place *on the mother's side*. Not every embryo is accepted and admitted. That is why, as noted previously, it could be reported that the success of the embryo transfer process is also determined by the maternal organism, and is in fact overridden or thwarted in Artificial Reproductive Technology. Attempts are made to make the maternal organism more receptive through all kinds of manipulations and hormonal interventions. Also, the *hatching* of the embryo is artificially provoked, under the assumption that this might fa-

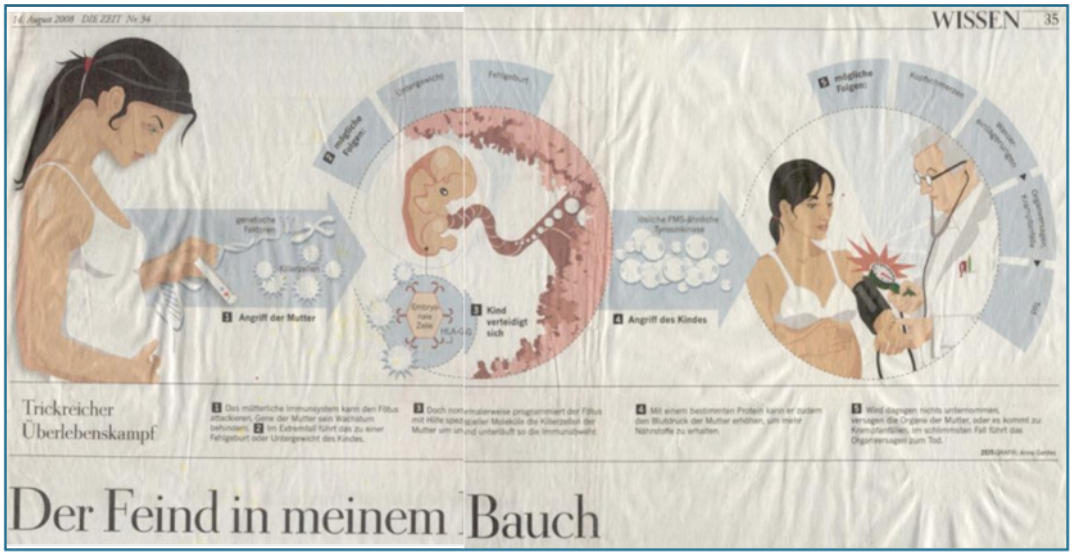

Figure 3. *The enemy in my belly (Source: Hauenstein, 2008)*

cilitate nesting. This has to do with the so-called *zona pellucida* or eggshell that encapsulates the egg cell when it is released from the ovary. At the moment the first and only sperm cell fuses with the egg, the *zona pellucida* undergoes a total biochemical change. In a few seconds, due to a burst of zinc from the egg cell, the *zona* is transformed into biochemical armor that prevents the entry of a second sperm cell. This is known as the *zona* reaction (Gilbert, 2000), and is assumed to be a necessity because in humans, an egg cell fertilized by two sperm cells (called polyspermy) cannot develop, with one very, very rare exception (Gabbett, 2019). In order for the embryo to come into contact with and interact with the endometrium as a blastocyst, the *zona pellucida* has to be dissolved. It is easy to assume that the maternal organism plays an active role in this process by means of enzymes produced by the endometrium cells. To increase the chances of embryo acceptance by the maternal organism, the *zona pellucida* is removed chemically, mechanically, or with a laser in many countries, as a preventive measure to promote successful implantation. Incidentally, it has still not been demonstrated with obvious statistical clarity whether in vitro *hatching* indeed increases the chance of successful nidation/implantation. What remains is that apparently in vivo, the *zona pellucida* is rendered harmless in an interactive process between mother and child.

Conventional immunology, supported by modern immunological genetics, describes implantation primarily as a confrontational process that can be compared to the cellular and chemical interaction that takes place in the body of a human receiving an organ that actually comes from a genetically alien donor. In that case, a genetically determined rejection reaction occurs. It is known that the degree of genetic matching between a donor and an organ acceptor determines the likelihood the donated organ will be accepted. For most transplanted organs, it is crucial for the recipient to take immune-suppressive medication throughout their life. Such medication is designed to prevent or reverse the body's natural immune response, which can vary depending on the specific organ transplanted. The most significant side effect of immunosuppressants is an increased risk of cancer, and heightened vulnerability to infections caused by external microorganisms.

The modern immunological-genetic model of pregnancy assumes that a tissue strangeness, a genetic mismatch, arises between the maternal and embryonic organisms that must be fought out. In these kinds of descriptions, it is not uncommon to talk about the child attacking the mother with what are referred to as killer cells, and a response and defense to that on the part of the mother. In this view, pregnancy involves a nine-month period

"Is implantation an aggressive penetration of the embryo in defiance of the maternal defenses, or is it a biological process of giving each other space and the right to exist?"

of a militaristic exchange and confrontation of immune substances – in other words, a kind of genetic war (Figure 3). It should be noted here that these types of models are the foundation of the growing medicalization of pregnancy and birth today, where pregnancy is often viewed as a pathology or disease.

This more recent interpretation of these events has overshadowed an alternative perspective that emerged in the 1980s, suggesting that a kind of immunological sanctuary or privileged site develops at the local level. In this way, the maternal organism creates a kind of space in which another genetically foreign tissue or organism can thrive (Thellin, 2000). Such immune-privileged sites are more well-known in biology, and certainly in the human body (like the blood-tissue barriers that exist in the eyes, central nervous system, and testicles). More recently, it has been discovered that fetal body cells can persist in the mother's body without always triggering immune or antigenic reactions, as seen in the rhesus antagonism. These fetal (stem) cells have been found in various tissues and organs in the mother's body, where they remain without being rejected or immunologically disabled (Zenclussen, 2007). Have they escaped from the enemy, or have they found a safe haven?

Apparently, therefore, one can describe the processes in question not only in the more aggressive militaristic terminologies of genetics and immunology, but also in the more phenomenological terminology of encounter, interaction, and dialogue. *It's all about gesture. Is implantation an aggressive penetration of the embryo in defiance of the maternal defenses, or is it a biological process of giving each other space and the right to exist?*

A similar kind of dialectic also plays out in the choice one makes to describe and understand the fertilization process. For example, is it a sperm cell that penetrates the egg cell (and before that the *zona pellucida*)? Or is it also a biochemical dialogue of the exchange of substances between sperm and egg that ultimately leads to a sperm cell fusing with an egg cell? (Van der Wal, 2007) **War or conversation**? So, it really is a paradigmatic or pre-scientific choice of position, and it can be a lived experience in the person based on physiological need, and is therefore the basis for the earliest experience of bonding and attachment. Both approaches can be considered truthful or right, and each in its own way leads to opportunities for therapeutic intervention.

Interlude: The Gesture of Motherhood

In many Waldorf School kindergartens and classrooms, it is common to find a reproduction of Raphael's *The Sistine Madonna*, an original representation of Mother Mary with her child Jesus. Certainly, in original Christian medieval icon

Figure 4. *The Sistine Madonna by Raphael*

paintings, Christ was either depicted on Mary's lap or, as in the present painting, carried by his mother while facing forward, his back leaning into her, apparently oriented toward what lies *in front*, what lies ahead, toward the future. This is the image of the mother as a physiological-psychological-sociological support or backup for the child, standing behind him and mediating between, perhaps, the spiritual dimension from which we come (or may come), and the future that awaits us on this earth in the realization of our biography. This image obviously does not apply to people who hold the view that children are product of fusion of sperm and egg, and that children belong to us and are made by us. Of course, the image presented here by Raphael is much more in line with Kahlil Gibran's words in *The Prophet* (1923). The first sentence of the chapter "Speak to us about children" reads: "Your children do not come from you, they come through you. And although they are with you, they do not belong to you" (Gibran, 1923).

Anyone who studies Raphael's painting carefully – leaving aside the painted secondary figures (which is permitted because, according to experts, they were added later, as were the large curtains) – can see that Mary is striding forward from a dimension behind her characterized by dozens of baby faces with clearly calling or singing mouths. The mother, as a support, allows the child to become himself. In the context of Christian symbolism, the mother descends from heaven to earth. From this perspective, isn't it remarkable that human implantation can also be seen as a gesture of entrusting oneself to the parent(s), and thus as entrusting oneself "backwards." Even the gesture of birth, which about 75% of infants perform from the occipital position, can be seen as a movement of deflection from the mother's womb so as to be oriented primarily forward, toward the world. Of course, the so called expulsion phase of birth, which is usually interpreted mechanically as pushing the child out, can just as well be seen as the image of the mother as a backup, helping the child to be born out of itself. A phenomenological understanding of the **gesture** of birth could be: "To be born out of oneself and to leave behind where one can no longer be at home." Perhaps this is going too far, and some readers may find this image too poetic and unscientific, but for the phenomenologist, again, the gesture is the key to understanding. Of course, each reader is free to choose a supposedly scientific image of pregnancy, in which mother and child face each other like immunogenetic enemies. There is, however, also ample biological evidence for the other image – that of the mother giving birth to the child, and also providing the child with the necessary support – so, actually taking a step back. Birth can be interpreted as the gesture of dying, and of development (van der Wal, 2007b).

Key Findings from Part One – Phenomenological Morphological Considerations of Nesting

Phenomenologically, nesting can be described as a critical moment in human embryonic development, because only with successful nidation/implantation into the endometrium can further development proceed. Estimates that the nidation process is unsuccessful range from 40-60% of all (human) conceptions. There are two theoretical models that describe the gesture of nesting. The more "aggressive" Darwinian model of **implantation** is a kind of defensive reaction of the maternal organism, followed by a defense and attack reaction of the unborn fetus. Alternatively, there is **nidation**, described phenomenologically as a process of acceptance and dialogue, in which the maternal organism actively determines whether nesting can be successful or not. In this case, nidation is considered and described more as a nesting of the embryo in an accepting free space created by the maternal organism in the endometrium. While the former model of nesting could be described as confrontational, the latter model involves a process of dialogue, exchange, and mutual acceptance. In short: *war or conversation*? In other words, a backward nidation in which the concept of backwardness should also be interpreted as a quality, as a gesture. Along this trajectory, it may be possible to identify and recognize a challenging or less successful nidation/nesting process in later life cycles, reflected in traumatic experiences of diminished trust and fundamental insecurity in relationships. This will be further explored by the trauma expert in the remainder of this article.

■ ■ ■

Birth Psychology, Prenatal and Perinatal Somatics, and the Gestures of Nidation and Implantation

Analysis of the impact of the prenatal and perinatal period on the psychosomatic development of humans began a century ago (Rank, 1924). Over decades of experimentation and growth (White & Rhodes, 2014; Gouni, Janus, Verny, Brekham, Turner, Turner, Rakovic, Janov, Odent, & Sovilk, 2022), practitioners in the fields of psychoanalysis, psychology, and prenatal and perinatal somatics have developed tools and skills to recognize, reach, and work with our earliest layers of experience. Among these layers is the experience of nidation/implantation that has been described above. As mentioned, nidation is the first touch between the parent and incoming soul in a gesture of backwardness and trust. This soul, defined as spirit and body (van der Wal, 2013), has already moved through the stages of preconception (encountering the family field), conception, early cell creation, and hatching. Each of these gestures in early development is significant and plays a role in human experience as an early implicit somatic memory.

Over many years, the nidation/implantation gesture has been taught as a burrowing gesture, often fraught with danger, as the embryo, hatched from its protective covering of the *zona pellucida*, must make its way to the wall of the uterus and there, make a home. If the uterus is welcoming and its lining rich with nutrients, the bonding and attachment sequence is easy, and the being perceives it is welcome. A sense of belonging and nurturing arises here, and is named as a memory, a layer of experience. But many times, the uterine wall is challenging for the conceptus to create a home for a variety of reasons, including endometrial conditions, previous surgeries that injured the tissues, fibroids, previous births (or deaths, such as miscarriage, stillbirth, or abortion). The uterine tissue also has its own experience. So, the embryo feels like it must burrow into the lining for survival. Its life feels precarious. Alternatively, the embryo may have an issue with its ongoing cellular development, which causes its progression to cease. This is one of those threshold moments in human development where some babies don't continue with pregnancy. They return to the spiritual world from whence they came.

The gesture of burrowing or nesting is what prenatal and perinatal therapists call Embryonic Rising, and is what the authors now refer to as implantation. Embryonic Rising as a movement or gesture in prenatal and perinatal therapy has been passed down through the lineage of teachers from William Emerson to his students Ray Castellino and Karlton Terry. Castellino included it in his foundation training, and this was continued by his student Myrna Martin. We have understood it after witnessing adults recreate their early experience by making a nest as a representation of the womb, and coming into relationship with the womb forehead first. As prenatal and perinatal somatic practitioners, we are trained to follow the posture of the adult, seeking information about their early life, and coaching them to feel into a bow of the head as the first somatic sign for implantation.

Embryonic Rising [2]

Collaboration with embryologists reveals that healthy embryogenesis begins with the embryo coming into relationship with the mother through the back side of the body (see discussion above). This is a healthy gesture of the conceptus. Indeed, it is a representation of healthy relationships, especially bonding and attaching, which begin with trust, receptivity, and yielding. Yielding begins a healthy developmental sequence in humans (Cohen, 1993). In prenatal and perinatal trauma, we often see bracing instead of yielding. We suggest a different gesture than the bow and connection with the forehead be put forth in prenatal and perinatal somatics and birth psychology. Instead, we suggest that coming into relationship with another as a yield, representing holding, spooning, connection, and loving embrace, now be taught to practitioners as the healthy gesture of implantation, and that they also learn Embryonic Rising to recognize when nidation has been difficult, which is often the case.

2. Gestures performed by Kate White and Margaretta McIlvaine as part of the Integrated Prenatal and Perinatal Dynamics training, filmed at the Bridge Between the Worlds Retreat Center.

Gesture 1 Embryonic Rising
Practitioner makes contact with the back of the client and waits. This is a process that takes place after the client has stated their intention. The practitioner may suggest the nesting as part of the process, or it simply arises spontaneously.

Gesture 2 Embryonic Rising
Practitioner moves their hand up to the upper back of the client and waits with the other hand for the head to bow.

Gesture 3 Embryonic Rising
Practitioner meets the client's forehead as they bow.

Gesture 4 Embryonic Rising
Practitioner follows client as they make their way to the floor, the perceived uterine wall of their parent.

Additional energetic patterns of the first connection with the mother may be an overactive immune response from the mother, where the conceptus feels threatened, including RH incompatibility. In this case, the early energetics are where the home is not safe, nor is connection. Adults can find home threatening, and finding a safe place to live is part of their constant lived experience. Some adults may have actual consistent threats in their environment, such as stalkers or perceived or real environmental threats. There are often conditions in the womb that make connection hard, such as a scarred endometrial lining from surgeries or other injuries. Finally, twin loss often happens here, with one twin not finding safe harbor in the womb. Twin dynamics are not addressed in this paper, but are an important layer of early experience.

Conclusions: A New Early Gesture for Prenatal and Perinatal Somatics

We propose that practitioners become aware of both patterns: war and conversation. Prenatal and perinatal somatics is based on an implicit somatic pattern language. The practitioner needs to learn the language that shows up as gesture, posture, bodily states, and metaphors for experience (i.e. war or love, struggle or dance). The prenatal and perinatal therapist is fluent in body empathy, has experienced the layers of human development, and can help heal early ruptures that happen at each level.

If the nesting experience was challenging, the practitioner may help the client make sense of their experience, and create conditions for healing. It is easy to look around at our world today and see how aggressive experiences in early life can play out in modern politics and our lived experience. Often, what happens in these early stages of development is very impersonal. The uterine lining may be challenging because of surgeries, other conditions, improper nutrition, or previous miscarriages. These challenges are often unintentional, and yet parents and children may take these early experiences quite personally.

The implications of understanding these two gestures as the earliest experiences of bonding and attachment are exciting. Early ruptures, boundary issues, and feelings of welcome, acceptance, and connection may be represented in nesting. In prenatal and perinatal somatics, we often say that bonding and attachment starts before conception, with the parents imagining their baby as a twinkle in their eyes. Parents who long for a child are already bonded to the idea and fantasy of their baby. In birth psychology, we can also see how spirits sense their parents at conception, and choose where they incarnate. We ask adults if they have the sense that they chose a human life. This early exploration is a dynamic of preconception/conception. At the moment of conception, we connect with a single-celled body. After about a week, that body has become a multicellular blastocyst. Then, we hatch out of the *zona pellucida*, and via nesting, we find our home in the uterine wall. We create our body there, in connection and relationship with our mother. By exploring the preconception/conception imprint, we help repair feelings of not being welcomed, or worse, not wanted. Is it possible that early challenges in the womb might be due to physiological issues not at all related to whether or not the parents want a baby? Is it conceivable that the adult seeking healing can find the somatic felt sense of connection through dialogue (nidation), or that the practitioner can help to presence and create new conditions so that attachment (connection) happens for the adult, and new awareness can arise?

The new gesture and process supported by the practitioner will be to make a nest for the person to approach as they will, not with the agenda of the practitioner, as in embryonic rising. In this nest, we consciously bring the intention of the person seeking healing. For example, people seeking healing and wholeness in life now often want more peace, acceptance, love, connection, energy, capacity, and so much more. We find a way to represent these wishes in the nest, often with pillows or other physical representations. We wait for the person to follow their own body memory. It could be that they come to the nest on the floor in a slow way, and find their connection on their back, in a curl, or through a burrowing gesture of their forehead. Our job is to simply follow, and hold the intention of our person so that they will find their way in connection with the human blueprint we hold as practitioners, and that we consciously imbue in the therapeutic space. As practitioners, we co-create conditions for healing with the training we have had, and the capacity of the person seeking resolution.

From the baby's perspective (as in the baby layer in the adult client, or the actual baby, prenatally and antenatally), these conditions may equal:

- I am not wanted
- I am not welcome
- Making a home is hard
- I may not survive if I stay here, but if I move, I may die
- I need to hang on for dear life
- My survival and home are in question and linked

How would it be if we could heal and further support this early place from a physiological, morphological, psychological, and spiritual perspective? The early layers would then be filled with messages such as:

- I am wanted
- I am welcome

- I can relax here
- I am safe
- I can grow here
- I am well received
- I belong here
- I can easily make a home
- I can trust others
- We can grow together

As a profession, we can expand our wisdom around nidation, and teach both approaches.

■ ■ ■

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Womb Shadows

Shining Light on Our Forgotten Prenatal Experience

Cherionna Menzam-Sills

ABSTRACT

This article proposes that prenatal experience is rarely acknowledged and tends to become unconscious shadow material. Our earliest experiences and influences within the womb lay a foundation for our body shape and functions, as well as our personality, behaviors, and relational tendencies. Ironically, this significant time of life tends to be neglected in discussions of psychological development, therapy, literature, and education. The experience of babies in the womb is so overlooked that parenting is often believed to begin at birth, long after parents begin influencing their child. Effects of prenatal life may be defined as unconscious shadow material destined for habitual re-enactment because they are not adequately reflected or reinforced as language develops. Because this early experience occurs before language or brain development, it tends to be held as implicit memory in body tissues, postures, and behaviors and, therefore, readily presents in body psychotherapy. This article reviews prenatal awareness and memory, as well as the possibility of providing therapy for what Little Ones needed in the womb as an option for healing.

Keywords: prenatal, shadow, awareness, unconscious, implicit memory

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> ***That prenatal experience is not verbal does not mean it does not exist.***

Shadow, Somatics, and Prenatal Experience

Before the brain and nervous system develop, we have experience. Those of us practicing body therapies are familiar with the client's body, revealing something the client was not consciously aware of. It is not unusual for prenatal and birth memories to present in somatic therapy through postures, movement patterns, and emotions. The client may or may not understand them. In a world where prenatal trauma is held in shadow, recognizing and meeting it effectively may not be within the practitioner's skill set. When we as therapists can integrate our early trauma, we can more clearly perceive and hold what arises for our clients.

The term "shadow," coined by Carl Jung, refers to unacceptable aspects of ourselves that we have repressed into the unconscious. We might ask how prenatal experience could be relegated to shadow. Consider how parents or others respond when a

toddler refers to daily events. For example, if they have gone to the zoo and then draw a picture of a giraffe, the mother may respond by acknowledging the experience. "Yes, that's the giraffe we saw yesterday at the zoo. It has a long neck." This helps the child record this event in conscious, explicit memory. Mother's reflection provides words to recall and talk about the experience. This reinforces the memory. She might comment further, "Remember that we also saw elephants with big ears?" This further establishes the memory and associates it with more words and details.

Explicit memory refers to verbal, conscious memories we can retrieve intentionally and discuss. Prenatal experience occurs preverbally. Unfortunately, parents are less likely to reflect the same way when toddlers enact, draw, or speak about their time in the womb. Adults often respond with comments like, "Don't talk such nonsense!" Or "Isn't that cute!" Or "You have a good imagination." Or "Look at this pretty toy." The memory is dismissed and negated, possibly through shame or distraction. The child not only fails to develop verbal language to file or express the memory explicitly but also learns that it is not acceptable to remember it. This memory does not disappear. It is held in the body, emotions, and behaviors as implicit memory. This kind of nonverbal, often unconscious, memory feeds the shadow.

Prenatal Awareness and Body Memory

That prenatal experience is not verbal does not mean it does not exist. Unfortunately, with our prenatal memories relegated to dark corners of the unconscious, we develop a collective shadow that fortifies this denial of prenatal consciousness. Deprived of verbal expression, implicit memory finds its way to be noticed as it seeks healing and integration through recapitulation. This is important because our experience in the womb includes trauma as well as inherent health, which we often refer to in pre- and perinatal psychology (PPN) as the original blueprint. Every developmental milestone, including those before birth, involves meeting challenges. These require change and resilience. With adequate resources, we can meet the challenge and develop according to nature's design. Lacking essential support, the challenge may prove overwhelming. Prenatally, such events can be life-threatening. We either adapt to conditions presented by the challenge, or we die.

Unlike explicit memory, implicit memory does not include linear context, like time. When implicit memory is stimulated, it feels like it is happening now. Little Ones cannot differentiate between past and present. They live in direct experience. Implicit memory similarly arises as direct experience. If it was life-threatening back then, it can feel like a life-or-death issue now.

An example of a life-death challenge is implantation, which must occur by the end of the first week after conception when we outgrow our food supply. Many babies die at this time, which is when twin loss often occurs. Surviving babies may have the memory of a struggle to implant or may be devastated by having lost their twin companion. They carry these memories in their bodies. It is not unusual for people with implantation trauma to have difficulty finding or settling into a home, which is what is meant to happen at the time of implantation. Their struggle to find adequate nourishment at implantation may also be re-enacted through eating disorders (Terry, 2013). Since this stage is also the first physical contact with mother, it may be echoed as anxiety or distrust in intimate relationships or interfere with bonding in infancy. When a twin has died, the surviving twin often lives with unexplained grief. Such early loss is rarely known or acknowledged by anyone other than the twin. There is no explanation for the grief, which may manifest as a tendency to depression or hypo states.

The autonomic nervous system (ANS) forms in the womb and is influenced by its tenor.

The ANS includes the unmyelinated vagus nerve, sympathetic nerves, and the myelinated vagus. According to Stephen Porges, originator of the polyvagal theory, these parts of the ANS arise in the embryo in order of their evolutionary development (Porges & Furman, 2011). The oldest unmyelinated vagus (parasympathetic) originates in the dorsal motor nucleus, first appearing in the brain stem at nine weeks gestation (seven weeks after conception; Porges & Furman, 2011). The nucleus (nerve center) is subdivided into subnuclei, which become visible by 13 weeks and are considered ma-

ture at 28 weeks (Porges & Furman, 2011). Activity in the newer sympathetic system, which accelerates heart rate, is first indicated by heart rate increases accompanying fetal activity, observed at 16 to 20 weeks gestation (Porges & Furman, 2011). However, it begins to form at six and a half weeks gestation (Kruepunga et al., 2021). Before the sympathetic system begins to function, the fetus can react to stress only by withdrawing or shutting down.

The nucleus ambiguus, where fibers of the newest myelinated vagus originate, is present at eight or nine weeks gestation and filled with mature neurons by 12 and a half weeks (Porges & Furman, 2011). These neurons' regulating vagal brake function is available once they reach their target tissues (e.g., in the heart), and myelination of these vagal nerve fibers begins at 23 weeks (Porges & Forman, 2011). Myelination then increases and continues actively through the first year after birth (Porges & Forman, 2011). The social nervous system, therefore, comes online at 23 weeks but is not fully developed at birth. It will be less available in very premature babies. Until it matures, self-regulation is impossible. Like young children, the prenate depends on the mother to calm and regulate the nervous system.

Early experiences occur prior to nervous system development. Even unicellular organisms sense and react to their surroundings. Their parasympathetic-like response to threat includes withdrawing, slowing their growth, or changing shape – as when a toxin is injected into their fluid culture (Weiskerchen, 2023). We begin life at a cellular level. Sperm and egg encounter conditions and respond intelligently as cells. Embryologist Jaap van der Wal (Koch, 2017) points out that the zygote (the embryo after conception) is a unicellular organism intelligently interacting with its environment.

Memory is active long before the nervous system emerges. Cellular memory is integral to life, including epigenetic changes in unicellular organisms (Nistiar, Racz, & Brenisin, 2016). Unicellular slime mold's remarkable ability to learn (and remember) its way through mazes has inspired engineers in designing roadway construction (e.g., Jabor, 2012)! Our immune system also demonstrates cellular memory, and its function depends on cells recognizing intruders, responding to them, and thus learning how to manage future incursions.

Similarly, the embryo remembers experience prior to nervous system development. Trauma is likely to have stimulated withdrawal, establishing a template for later ANS patterning. I frequently witness tendencies for dissociation and shutdown in clients with prenatal trauma histories.

The polyvagal theory explains our hierarchical response to potential threat. For example, when we hear an unknown sound, we first use our social engagement (ventral vagal) system to check for other people nearby and monitor their responses. As relatively small animals, we derive safety in numbers and group intelligence. Helpless babies are completely dependent on their caregivers to protect them. If support from other humans is not apparent, our next oldest system in evolutionary terms is activated: the sympathetic nervous system, which enables fight or flight. However, Little Ones are too small and weak for this system to protect them effectively. It may not even be available yet. Their only option is the oldest (dorsal vagal or parasympathetic) nervous system, which generates slowing down and, if necessary, shutting down. Babies in the womb may experience increased heart rate, muscle tone, and even the anger associated with the sympathetic reaction once this system is available, but they cannot act on it. They can only withdraw.

Trauma experienced in the womb tends to be recapitulated through re-experiencing dissociation, shutdown, and the perception of danger. Because Little Ones are completely dependent on caregivers for their safety, healing trauma from this early time requires establishing a safe relational field.

Welcome: Meeting our Earliest Experiences

Like all of us, babies' sense of safety depends on how they are treated. With their extreme dependence, they can feel safe only if their existence is acknowledged and welcomed. Mothers who do not want their babies may be less inclined to take care of them, which is dangerous for the child. This is also true in the womb. Being unwanted is probably the most traumatizing condition possible for a prenate. Besides the possible dangers of abortion or abandonment, maternal physiology responds to her psychological state. Ambivalence about having a baby may render her uterine wall less lush, making implantation more difficult and nourishment

scarcer. Her feelings of anxiety, fear, stress, or rage are communicated to the fetus both physiologically, through the umbilical cord, and energetically, through a phenomenon known as "umbilical affect" in PPN (Sills, 2009). What arrives umbilically can be or feel toxic for the baby, who faces a double bind because they are also dependent on the umbilical source for life-giving nourishment.

From pre-conception on, babies thrive on a sense of welcome. This was, understandably, the first of a set of principles developed by pre- and perinatal therapy pioneer Ray Castellino to support safety and healing for Little Ones (White, 2013.) It may be informative here to notice what happens in your body when you read the word "Welcome!" Is it different from how your body responds to words like "Go away!" or "I don't want you!"? While we all need to be welcomed. Little Ones are dependent on it for survival.

Checking our bodies and emotional states can inform us when investigating prenatal experience. As well as holding early memories in our ANS and pre-ANS tissues, which react automatically, our linear, time-oriented left brain develops years later. Prenates live outside of time. Without left brain analysis, memory remains implicit, expressing itself somatically. Because implicit memory feels like it is happening now, individuals remembering prenatal danger do not easily sense safety in present time. That requires support from the ventral vagal social engagement system. As therapists, our own settled nervous system, mindful presence, and sincere welcome can stimulate this ventral system through resonance, facial expressions, prosody of voice, and other reassuring cues.

People experiencing Little One states, as they may in therapy, need to feel welcomed to sense safety. That welcome may not have occurred in the womb because the mother or parents lacked sufficient support or resources. It is a natural biological imperative for a mother to want and protect her baby. Not feeling safe or struggling for her survival may interfere. She may already be overwhelmed by taking care of too many little children. She may have an abusive partner or no partner. She may live in war conditions or extreme poverty and feel unable to care for another baby. Or her nervous system may be in such a defensive state that messages of danger reach her Little One more strongly than those of welcome.

The first Castellino principle of safety is the Welcome principle, which can be interpreted as welcoming ourselves, welcoming each other, and welcoming what arises in this moment–a basic mindfulness practice. Having studied with and assisted Castellino for years and facilitated Castellino-style womb surround process workshops, I remain in awe of how the principles of this work result in deep levels of relational safety within a group or in individual therapy.

Another important Castellino concept is "layers of support" – a term coined by midwife Mary Jackson, who worked closely with him. As Castellino noted:

> When all the support layers are there for a family, the family hums. Support the mother, support the baby. Have two layers of support for the mother and two layers of support for the baby, and make room for mom to get her needs met. (White, 2013, p. 272)

We all need layers of support to thrive. For the embryo, these layers include the membranes, cord, placenta, the womb within the mother's body, and her psyche and support. Ideally, this includes a supportive partner, extended family, friends and community, midwife or other birth attendants, and the broader culture. Not all birthing people experience such support. If they have a partner and extended family, the relationships may be volatile, demanding, judgmental, or otherwise unhelpful. Where is the welcome here? Culturally, conditions may also be more challenging than supportive. Babies in the womb suffer when their mother suffers. On a physiological level, we know that extreme or chronic maternal stress is reflected in the baby's developing nervous system, resulting in altered levels of the stress hormone cortisol (Luecken et al., 2013). These babies often become hypersensitive to stress. On an emotional level, they have less sense of safety or welcome. Of course, some very stressed mothers can warmly welcome their babies, but this can be more difficult.

I want to pause here to offer a word of reassurance to readers who are parents. We all do our best within our circumstances. If you feel guilt or shame about not having been able to welcome your child as fully as you might hope, you probably lacked sufficient layers of support. Humans are not designed to raise children in isolation. We all need support. It is said that "it takes a village." If you did not have the support you needed back then, it

is tempting, but not beneficial, to blame yourself. It is still possible to access support and to heal. The therapeutic work of Tony Madrid (2011) is particularly inspiring in this regard. He usually worked just with the mother when there was a less-than-ideal gestation and birth history. Using primarily hypnosis, he guided the mother in recalling how things were and then imagining them precisely as she would have wished. In most cases, this led to remarkable changes in her child and her relationship with the child.

In somatic therapy, we can also provide the welcome and support needed back then. We can provide a different, more ideal context. The embryo forms in relation to its context. For example, cells surrounded by heart cells become heart cells. Brain cells develop based on who their neighbors are. Embryos growing in a maternal field of fear and stress intelligently develop in ways suited to that context. They are preparing for life in their mother's world. Cell biologist Bruce Lipton (2015) notes that they prepare differently, depending on their mother's perception of her world as safe or threatening. We continue forming and re-forming throughout our lives. This process is particularly apparent in body-centered therapies, where we observe and work with physical form, not just words. How we meet our clients provides a context for them that can facilitate re-forming in beneficial ways, providing what therapist Bonnie Badenoch (2017) terms "disconfirming experience" (p. 13). As clients begin to feel welcomed and received in our presence, their early, unintegrated experiences tend to come forward, seeking the recognition, welcome, support, and integration that were missing back then.

This may awaken the therapist's unresolved early trauma, interfering with our ability to offer the welcoming presence our clients need. I cannot emphasize enough the importance of doing our healing work in our very early development. Unacknowledged shadow tends to be projected onto others. It longs to be seen. We owe it to ourselves, our clients, and perhaps our planet to pay attention to it.

This may seem like an extreme statement, but I am not the first pre- and perinatal psychologist to see connections between early trauma and how we conduct world affairs or treat Mother Earth. An interesting example is Lloyd deMause (1982), who created a new field called psychohistory, which he defined as "the science of historical motivation" (deMause, 1982, p. i). In *Foundations of Psychohistory*, he outlines how cultural activities, like war, abuse, childrearing practices, and even UFO sightings, can be linked to prenatal and birth experiences. He sees war as a metaphor for birth, relieving the buildup of pressures, like those in the womb just prior to birth (p. 93). Informed by how pre- and perinatal trauma may be held and re-enacted, it is reasonable that extreme behaviors may resonate with early experience. Similarly, our treatment of our great mother, planet Earth, may relate to how we felt in relationship with our first mother. If we felt unsafe in her womb, we might have established a conflictual relationship with the mother figure and projected this onto the earth. A full discussion of this topic is beyond the scope of this paper. More relevant here is how we can apply our knowledge to prevent early trauma and so protect not just the earth but also our new Little Ones arriving.

Supporting Health and Ease for Little Ones Arriving

As long as prenatal and perinatal experience remains in shadow, we will likely continue acting it out unconsciously. In his beautiful, poetic book, *Birth without Violence*, French obstetrician Frederic Leboyer (1975) describes how the umbilical cord can be cut prematurely by a birth attendant still anxious from his birth:

> Under the pretext of aiding this new and "other" being, the attendant has considered only himself. Without knowing it, he has made a transference. He has rid himself of his anguish by projecting it onto the child. And it is this sacrificial lamb, deprived of his umbilicus, who suddenly is choking. And howling... (p. 104)

Babies in the womb also suffer due to the transferences and unconscious shadow of those around them, particularly their parents. Pre- and perinatal therapy pioneer William R. Emerson wrote: "We marinate in the shadow [i.e., denied aspects of the unconscious] of our parents" (2002, p.68). What we marinate in becomes infused into our cells, tissues, organs, posture, thoughts, and beliefs. Marinating within a family field of suppressed or expressed rage may generate a child suffused with fear. Or rage. When a mother has developed in a womb where she was unwanted by a mother who

was too young, overwhelmed, stressed, threatened, or afraid, the baby of the next generation may feel unwanted. How can we help counter these patterns?

With awareness, we can support incoming beings in being welcomed and safe. From pre-conception on, I cannot imagine anything more important than supporting new parents. Many proudly announce that they have become parents when their baby is born. This is long after the important transition has already occurred. People intending to become parents must be supported in preparing for this significant role. We know that epigenetic changes occur in eggs and sperm that come together at conception in response to the parents' or grandparents' lifestyle and life experiences, even before adolescence (Golding et al., 2021). Trauma can be passed down to future generations via epigenetics. The more we can do to heal and prevent trauma, the greater the chance of having happier, safer children in our future world. Educating adolescents about how their behaviors and psyche may affect their future children may help. Most important is treating babies and children at any age with appreciation, respect, and open communication. This will affect their relational tendencies, setting the stage for how their children come into the world. We can also remember and support our inherent health and the tremendous potential to become that the embryo embodies, which can also be in shadow.

Little Ones can be acknowledged and welcomed even before the pregnancy is discovered. Parent or parents-to-be can think about their child, hold them in their hearts, show them their lives, talk to them, and listen for their communications. Babies respond to parents' thoughts and emotions. They know when they are genuinely welcomed or not. They also listen when spoken to in the womb. For example, when a baby is in a breech position, the mother can explain that it can be easier if they turn. I have heard of many babies turning within hours of this kind of suggestion. Babies appreciate communication. They are less traumatized in birth or with prenatal procedures if they are warned about what is going to happen, with an explanation that it is meant to help them. For example, amniocentesis causes the fetal heart rate to accelerate (Mellor et al., 1981). A simple explanation could help babies react less to the invasion.

Babies, like all of us, need their experience to be acknowledged and reflected with empathy and compassion. If a twin has died or a baby is adopted, for example, we know that the baby will have feelings about this. The denial and obliviousness of people around them further hurts them. Simply acknowledging that it was difficult can help. When we have not noticed or understood their experience, repair is needed. We can say something like, "I'm sorry I missed that." We can practice being curious and present to reduce the frequency of these ruptures. We can settle our own nervous system, offering our own calm, resourced state as a source of co-regulation. Since Little Ones cannot self-regulate, they require the presence of another, ideally mother, to resonate and connect with. If that was missing when they were little, our clients can receive this from us now. We can offer a different, more nurturing context than was available back then. Over time, they can develop the ability to internalize this relational experience, soothe their own inner Little One, and self-regulate. When people have shone light on their shadow and healed in this way, they are more ready to welcome the next generation.

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Trauma, Memory, and Perception

John Wilks

ABSTRACT

This article explores the significance of sensory experiences in babies and prenates, challenging the assumption that their limited experiences render them incapable of interpreting and contextualizing sensations. It highlights how prenatal exposure to different types of stimuli contributes to the development of the nervous system and shapes future emotional responses. The article argues that even seemingly simple sensory inputs can carry profound meanings, influencing an infant's stress response and relationship to trauma later in life.

The text further examines the complexities of trauma perception, noting that the severity of an experience does not always correlate with observable effects on the infant. Factors like maternal emotional state and infant temperament play crucial roles in shaping responses to prenatal and perinatal trauma. It also introduces the concept of somatic memory, suggesting that some individuals can access detailed recollections from their prenatal stages, challenging traditional views of memory. Overall, the article emphasizes the need for trauma-informed caregiving practices that acknowledge the depth and implications of early sensory experiences in supporting healthy development.

Keywords: trauma, perception, memory, infant

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As adults, our perception of the world is intricately shaped by our previous experiences, which color our present understanding and influence how we integrate new experiences. Each encounter alters our interpretative framework, suggesting that our responses to similar stimuli are unique to our individual histories. Thus, in our daily lives, we often see what we expect to see and feel what we expect to feel, viewing the world through a personal lens that filters and interprets reality.

> ***...the perceived severity of an experience does not always correlate with observable effects on the baby.***

These variations in perception carry significant implications, particularly concerning trauma and particularly when it comes to babies' experiences. This is especially true of neonates, who have a considerably smaller library of prior experiences to draw upon to make sense of any new experience. The subjective nature of our experiences raises critical questions about how we determine what constitutes a traumatic event. Furthermore, the processing of these perceptions within our nervous

systems – along with potential influences from other systems – merits further exploration, especially in relationship to the relative maturity of a baby's nervous system when significant events might have occurred. In this paper, I aim to delve into the intricate relationship between individual experience, perception, and the processing of trauma, highlighting the complexities inherent in understanding our responses to the world around us.

The Relationship Between Experience, Trauma, and Pain Perception

Let us start with pain. Pain is not merely a biological response; rather, it is intricately tied to our previous experiences, context, and the meanings we ascribe to sensations. Pioneers in pain research, David Butler and Lorimer Moseley (Butler & Moseley, 2003), emphasize that the sensation of pain arises from a complex interplay of neurological, psychological, and contextual factors, challenging the simplistic view of a straightforward pain pathway.

Butler and Moseley argue that our perception of pain is heavily influenced by our previous experiences with sensation and interoception, which is our ability to perceive internal bodily states. This perspective suggests that our brain evaluates not just the sensory input but also the context surrounding it. For instance, an individual may interpret a painful sensation differently based on past experiences or emotional states, leading to later variations in how pain might be felt in intensity and duration.

Research indicates that individuals who experience pain early in life are more susceptible to developing chronic pain conditions later on. For example, studies have found that childhood trauma or early physical pain significantly increases the likelihood of persistent pain in adulthood (Sullivan & Neish, 1999). This highlights the long-lasting effects of early experiences on how pain, and possibly trauma, are perceived and processed.

Antonio Damasio's work (2003) elaborates on this connection by examining how emotions and bodily sensations are interlinked. Damasio posits that emotions play a crucial role in shaping our perceptions of bodily states. When individuals develop negative associations with physical sensations due to early pain experiences, this can create a feedback loop in which the brain interprets neutral sensations as threatening, leading to heightened pain perception.

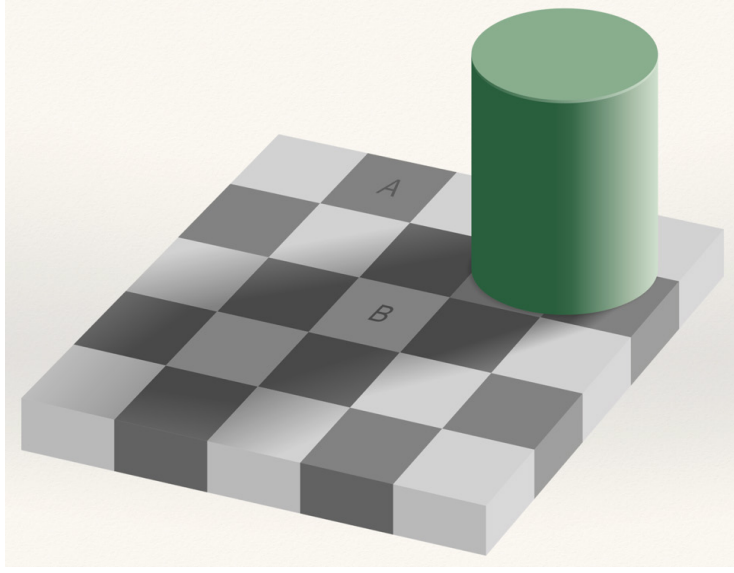
The Role of Visual Perception in Interpretation

Visual perception provides a striking example of how our nervous system interprets stimuli. It often leads us to perceive something that doesn't align with objective reality. As Moseley explains, our sense organs, including our eyes, engage in complex neurological processes to construct our experience of the world.

Consider the example below of the image of three bars. Most observers might perceive the top bar as transitioning from light to dark, the middle bar from dark to light, and the bottom bar as going from light to dark. However, the objective reality is that the middle bar is just one shade of grey. This illusion demonstrates how our brains interpret contextual information, depending on what we expect to see from previous experience.

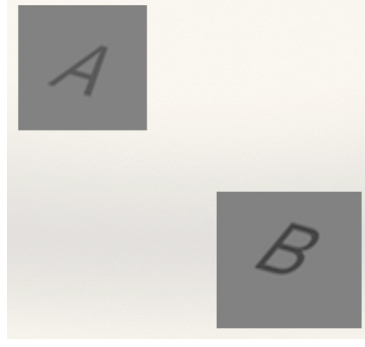
When we perceive visual stimuli or face any stimulus, our nervous systems perform what Moseley describes as "neurological acrobatics." The brain

analyzes contrast, brightness, and surrounding colors to make sense of what we see, especially if something is familiar. For instance, the reticular formation filters sensory information and focuses attention, which can further influence our perception of physical sensation or even an image like this.



A striking example is the illusion created by Edward Adelson involving two shaded squares, A and B, that appear to be different shades of grey. Despite the objective fact that they are identical, our visual system is tricked into seeing them as different due to their contrasting backgrounds.

When viewed in isolation, as shown in accompanying screenshots, it becomes clear that surrounding cues distort our perception, and we see something that is not there. You can have fun unpacking this illusion here: https://www.mantlelabs.com/illusion/



These visual illusions underscore the concept that our perception is not a direct reflection of reality but rather an interpretation influenced by context and prior experiences. This insight is crucial when exploring the nature of trauma, as it suggests that all our sensory experiences, whether visual, tactile, auditory, or olfactory, are subject to similar interpretative processes. Just as our visual system can be deceived, so too can our interpretation of physical sensations, leading to highly individualized responses to stimuli that might be perceived as traumatic. This is as true for babies as it is for adults.

The Role of Context and Meaning in Trauma

As with pain, when examining trauma, it becomes evident that the experience itself is not solely responsible for long-term impact on our psyche; instead, it is the context and meaning attributed to that experience that play crucial roles. This perspective shifts our understanding from viewing trauma as a singular event to recognizing it as an ongoing process of interpretation and integration.

Therapeutic approaches often focus on helping individuals integrate traumatic experiences that they have struggled to process. Integration involves making sense of the trauma within the framework of one's current life, allowing the individual to contextualize the experience and reduce its emotional charge. This process can be essential for healing, as it enables individuals to move from a state of reactivity to one of understanding, and it is a key factor in baby therapy.

As we know from clinical experience, an inability to integrate traumatic experiences can lead to various mental, emo-

tional, and physical health issues. When individuals cannot process and integrate trauma, they may find themselves stuck in a cycle of distress, impacting their overall well-being and daily functioning. This, again, is true for infants as much as it is for adults.

When considering trauma, it is essential to take a nuanced approach to the experiences of newborns and even prenates, who may appear to have limited prior experiences for interpreting sensations and putting them in context. However, their developing nervous systems are not as unformed as we might assume.

From the prenatal stage, infants are exposed to various sensory stimuli that influence their development. They experience tactile sensations through movement in the amniotic fluid and auditory inputs, such as the sounds of their mother's heartbeat, digestive system, and external noises. These experiences help to lay the groundwork for their sensory processing abilities.

While it might seem that a heartbeat is merely a heartbeat and does not require contextual interpretation, it is crucial to recognize that even simple sensations will be interpreted in one way or another. For instance, the sound of the mother's heartbeat might or might not be associated with safety and nurturing in the developing baby's psyche.

Responses to Prenatal and Perinatal Trauma

When examining how infants respond to trauma, particularly prenatal or perinatal trauma, we encounter a paradox: the perceived severity of an experience does not always correlate with observable effects on the baby. As therapists, we may find ourselves surprised by the resilience of some infants who endure significant maternal stress or complications during birth. In contrast, others who experience seemingly idyllic births exhibit signs of profound distress.

This discrepancy challenges our assumptions about what constitutes a traumatic experience for an infant. Trauma is often contextual and subjective, meaning that what one baby perceives as stressful may differ significantly from another's experience. Factors such as maternal emotional state, environmental conditions, heredity, and even the infant's temperament play critical roles in shaping their responses.

These observations lead to fundamental questions about the nature of memory and awareness in infants. Traditional understandings of memory emphasize the role of a fully developed nervous system. Yet, many prenatal and perinatal therapists report instances of clients accessing somatic memories from as early as conception or even earlier. This suggests a form of memory that transcends conventional neurobiological explanations. Various studies and papers have been written about this (Chamberlain, 1998) and the possible effect of past life experiences (Tucker, 2005).

Whether or not a clinician believes in these possibilities, they may well be a lived reality for the adult or baby in our care, thus requiring an open-minded and inclusive approach. Anecdotal evidence from therapeutic practice indicates that some individuals carry detailed recollections of experiences from prenatal stages, including conception and implantation (nidation). These memories may manifest as somatic sensations or emotional responses rather than verbal recollections, highlighting a form of awareness that does not necessarily rely on conventional cognitive memory structures and may manifest later in life as a "felt sense" about something rather than as a cognitive memory.

Non-Local Memory and Consciousness

One parallel worth investigating in the context of non-local memory is the work of cardiologist Pim van Lommel. In his groundbreaking study published in *The Lancet* in 2010, van Lommel examined cases of patients who experienced clinical brain death but reported vivid memories and awareness of their surroundings during that time. His findings challenge conventional understandings of consciousness and memory, suggesting that these phenomena may not solely depend on a fully functioning nervous system (van Lommel, 2010 & 2014).

In his study, van Lommel gathered data from patients who had undergone cardiac arrest and were clinically dead for periods during which they experienced no brain activity. Remarkably, many patients later recounted specific conversations and events in this state, indicating a level of awareness

that defies traditional neuroscientific understanding. These accounts suggest the possibility of consciousness existing independently of the physical brain, raising profound questions about the nature of memory and awareness.

Van Lommel's research opens a dialogue about how we understand memory, particularly in the contexts of trauma and early development. If consciousness can persist outside the bounds of conventional neurological frameworks, it is possible that memories – particularly those related to trauma – may not be constrained by the typical neurological processes we associate with memory formation and recall. This perspective could have significant implications for therapeutic practice, particularly in treating trauma and understanding the experiences of individuals from prenatal stages onward.

Emotional Capacity in Infants

An intriguing question also arises regarding whether infants can experience and express complex emotions such as guilt, anger, resentment, or even empathy. Many therapists assert that infants are indeed capable of experiencing a range of emotions, often observing these expressions in their therapeutic practices. This perspective contrasts sharply with that of Sigmund Freud, who argued that infants lacked the capacity for significant emotional experiences. (Freud, 1920)

Freud's view has contributed to broader skepticism among health professionals and the public regarding infants' emotional capabilities. His theories suggested that emotional development is contingent upon cognitive maturity, leading to the perception that infants are mainly incapable of meaningful emotional experiences. This skepticism has had dire implications, including the historical practice of performing surgeries on infants without anesthesia based on the misguided belief that they could not feel pain or distress in a significant way (Monell, 2011).

Understanding Pain and Trauma in Infants

Investigating how infants perceive and integrate pain and trauma can lead to a profound shift in our understanding of their emotional and neurological development. The interpretation of experience is key in determining whether an event is perceived as traumatic. For infants, this interpretation is influenced by several factors, including their developmental stage, the emotional states of their caregivers, and the context in which the events occur. A baby may experience significant distress during a medical procedure, but whether this is perceived as traumatic can depend on the surrounding circumstances, including the presence of supportive caregivers and the overall emotional atmosphere.

Making sense of experience is essential for emotional integration in adults and infants. When events are understood and contextualized, individuals can process them more effectively and move forward. For infants, this means that supportive interactions with caregivers can help them interpret distressing experiences. The presence of a nurturing, listening figure can provide a sense of safety and security, facilitating the integration of challenging experiences and reducing the likelihood of long-term trauma.

Consider several neonatal situations where the baby's interpretation is critical:

1. **Surgical Procedures:** Infants undergoing surgery may experience pain and distress. Their ability to process this experience can be influenced by the presence of comforting caregivers and how the procedure is conducted and presented.
2. **NICU Stays:** Babies in neonatal intensive care units often face numerous interventions. The emotional support provided by parents and caregivers can help mitigate feelings of fear and isolation, aiding in interpreting these experiences.
3. **Birth Trauma:** Infants may experience trauma during delivery due to complications. Their understanding of this event can be shaped by the reactions of their caregivers and the care environment.

A Baby's Perspective on Birth

Let's look at how a baby might experience birth – something we all go through. Even with a so-called "normal" birth, there is considerable scope for nuanced experience, and even traumatic imprints, to strongly form at this time. Imagine this scenario from a baby's perspective at birth:

There is a profound sense of coming from somewhere, a gradual awakening to the surroundings. Encased in warmth and fluid, babies begin to experience their bodies by moving limbs and feeling the rhythmic beating of their hearts. The auditory landscape is rich and layered: muffled sounds from the outside world contrast with the intense, familiar sounds of their mother's heartbeat and digestive processes. Babies are also aware of sensations related to nourishment, feeling the "taste" of nutrients arriving through the umbilical cord.

As development progresses, feelings of confinement arise. Babies sense pressure from all sides, leading to a growing anticipation of the impending transition to the outside world. This environment can evoke a mix of comfort and anxiety; curiosity about what lies ahead mingles with concerns about acceptance and love. Babies are keenly attuned to their mother's emotions, sensing her anticipation and potential fears about the birth process.

As contractions begin, babies feel intense pressure on their heads as they contact the cervix. While some pressure is comforting, babies also encounter discomfort as they press against the mother's sacrum. A sense of panic arises with restricted oxygen, reminiscent of feeling trapped in a tight space. Brief moments of relief occur between contractions, allowing babies to "catch their breath."

The intensity increases, and feelings of dread emerge as babies struggle to navigate through the constricting passage. Exhaustion sets in, yet adrenaline fuels the effort to position themselves for birth. As they finally emerge, they are dazzled by bright lights, and confronted by unfamiliar faces and sounds.

Relief accompanies the realization of being alive, but this is quickly overshadowed by a new panic as the oxygen supply shifts. Babies' reliance on their mother's oxygen is abruptly severed, triggering the instinct to breathe independently. As strangers handle the baby, the sensation of something abrasive against their skin provokes a cry, an instinctual response to overwhelming stimuli.

Implications for Understanding Trauma

This narrative illustrates how potentially complex and nuanced a newborn's birth experience can be. It emphasizes that babies are deeply affected by the sensory and emotional context of their entry into the world. Interpreting these experiences is critical; whether they are perceived as traumatic can significantly impact children's emotional development and ability to integrate these experiences later on.

Recognizing the depth of these experiences encourages caregivers and practitioners to approach the birthing process with sensitivity, ensuring that the emotional needs of mother and baby are met. This understanding can inform practices that promote a supportive and nurturing environment during and after birth.

Interventions

Now, imagine from a baby's perspective this scenario of a pharmacologically-assisted birth, where the mother might have been induced and given pain relief:

Initially, the baby feels comfortable in the warm internal environment, preparing mentally and physically for the upcoming transition. There is a mix of anticipation and excitement about what lies "beyond the doorway." However, this calm is suddenly disrupted by feelings of grogginess, triggering alarm as a baby instinctively knows the need to remain alert for the journey ahead.

Without warning, the door bursts open, and unfamiliar figures enter. The suddenness of the event feels invasive as the baby is placed in a painful hold, and whisked away without negotiation or explanation. The transition from the familiar to the unknown is jarring.

Blurry vision and a pounding headache compound the confusion. As the newborn gasps for air, panic sets in with the sudden loss of oxygen. Despite the apparent joy of those around them – laughter and smiling faces – newborns feel isolated in their distress and struggle to understand their new reality.

As they are further separated from warmth and comfort, invasive medical procedures ensue. The sharp pain in their heels is unlike anything they have ever experienced, and the sensation feels threatening. The newborns' cry echoes loudly, a visceral expression of confusion and fear. The burning sensation in their eyes adds to their disorientation, leaving them unable to focus on their new surroundings.

When placed upon the breast, these newborns struggle to latch and suck, feeling foggy and tired. The confusion intensifies as they try to make sense of this new world, feeling overwhelmed by the rapid changes and unfamiliar sensations.

Over the following hours, caregivers express love and relief at the baby's arrival, reassuring them of their safety and health. For the baby, however, the experience remains chaotic and fraught with discomfort. Their desperate need for connection and understanding is paramount.

This narrative underscores the complex emotional landscape newborns face during their entry into the world. It illustrates how overwhelming sensations, sudden changes, and a lack of agency can contribute to a traumatic experience. By understanding the newborn's experience, we can foster approaches that prioritize emotional well-being, ensuring that transitions into the world are as gentle and supportive as possible. This understanding can help mitigate the long-term effects of trauma and promote healthy emotional development.

Societal Impacts on Trauma

Let's look now at how very specific and challenging events might be interpreted by a newborn. Because circumcision is such a common practice all over the world and in many differing cultures, it has been extensively studied in terms of its potential long-term effects (Gollaher, 2000). In relation to what has been said before, understanding the context in which procedures like circumcision occur is vital for assessing their potential impact on infants.

Circumcision might be performed in hospitals, where approximately 55% to 65% of American boys are circumcised every year with varying levels of parental involvement. As of 2012, the American Academy of Pediatrics was still recommending circumcision (American Academy of Pediatrics, 2012) despite the potential for significant harm. Additionally, cultural and religious rituals often accompany the procedure, adding layers of significance and expectation that may further impact the infant's experience (Glick, 2000).

Imagine a newborn's experience of circumcision where the familial, societal, and religious elements might be intertwined in a baby's consciousness with a very physical experience:

In the days following birth, baby's world is filled with new sensations: voices, smells, light, and the comforting contact of skin. They begin to develop a rhythm with day and night, feeding, and the feeling of clothes on their skin. Familiar voices from the womb gradually become comforting anchors in this new environment.

On a particular day, excitement fills the air. Dressed in unfamiliar clothing, the baby is taken outside for the first time, experiencing the first bracing breaths of fresh air. They enter a building, and the atmosphere shifts as they are brought to the front of the room. Strange rituals and unfamiliar language swirl around them. The baby's clothes are removed partially, and they sense an underlying current of expectation from the smiling faces surrounding them.

Suddenly, a searing pain pierces through the euphoria of the celebration. This pain surpasses any discomfort experienced during birth, creating a sense of alarm. The baby's nervous system reacts instinctively, sending them into a state of heightened alert. Heart racing, feeling hot and panicked, they struggle to comprehend the sudden shift from joy to agony.

In this moment of intense distress, confusion reigns. The baby attempts to reconcile their experience with the happiness of those around them. Why are others celebrating when they are in such pain? The juxtaposition of external joy and internal suffering creates a profound sense of isolation.

The celebration continues; people are dancing and singing, yet the baby's cries go unanswered. The incongruity of the situation leads to a painful realization: the baby internalizes the experience, interpreting it through a lens of confusion. Perhaps they have done something wrong. Perhaps their suffering signifies a personal failing. This interpretation can have long-lasting implications for emotional development, shaping how they perceive themselves and their place in the world.

Implications for Understanding Trauma

This narrative illustrates the complexity of a newborn's emotional experience during a significant event like circumcision, but could equally be applied to a difficult birth or a confusing entry into this world. The pain and confusion experienced in

such contexts can profoundly affect the baby's developing sense of self and ability to process emotions. Recognizing that infants can internalize traumatic experiences, especially when there is a disconnect between their experience and everyone else's, highlights the importance of approaching how we treat babies with sensitivity and awareness.

The Interconnection of Autonomic Responses and Self-Perception

In situations like those described above, a newborn's autonomic nervous system responds with a powerful survival instinct. This response, characterized by heightened heart rate, increased respiration, and a state of alertness, or conversely, a dorsal vagal shutdown, happens very fast, and initially serves to protect the infant from perceived threats. In the baby, this might play out as an exaggerated Moro reflex. However, it is particularly striking how these immediate survival responses can intertwine with beliefs the infant forms about themselves and their surroundings in response to those autonomic responses. This means that later in life, when an external or internal stimulus triggers autonomic responses, they get coupled with certain strong beliefs about belonging, safety, or "goodness," which can be very difficult to disentangle. The shock of experiences like circumcision can lead to profound internalizations. Amid joy and celebration, the infant is left to grapple with confusion and pain, which can shape their understanding of themselves and the world around them.

Perhaps because there is little prior experience to draw upon to put an event like this into context, a baby might interiorize the experience and tend to believe that the only explanation is that something is wrong–wrong with self, the environment, or the people in it.

For example, in the aftermath of such a traumatic event, babies might begin to develop distrust toward the people who are supposed to provide comfort and safety. The cognitive dissonance between the caregivers' happiness and a baby's distress can lead to a skewed perception of relationships, where the infant may come to believe that expressions of joy can coexist with personal suffering.

These early experiences can have long-lasting implications for emotional and psychological development. As babies grow, they may carry forward feelings of distrust, leading to unhealthy attitudes toward intimacy and sexuality. For instance, the pain associated with a significant life event may become conflated with the experience of closeness, resulting in a complex relationship with physical touch and affection.

Furthermore, if infants internalize the belief that they somehow contributed to their suffering, it may foster feelings of inadequacy or shame. This cycle of negative self-belief can perpetuate a pattern of emotional distress, impacting future relationships and the ability to engage with the world in a healthy, trusting manner.

A Baby's Experience of Surrogacy

To take a completely different example, in the context of surrogacy, a newborn's experience is often overshadowed by adult concerns and rights. Imagine a baby born in a hospital after a long and exhausting process. As they finally encounter skin contact with their birth mother, a moment of relief washes over them. Yet, this calm is short-lived. Soon, unfamiliar voices fill the room – excited, joyful, and perhaps overwhelming. The baby is passed around among strangers, and a sense of confusion sets in.

Despite the adults' jubilant celebration, the baby feels disconnected and unsure of their place. The juxtaposition of adult happiness and the baby's confusion can lead to feelings of anger and frustration, yet these emotions often go unacknowledged. The well-meaning reassurances from adults – that everything will be wonderful, and that the baby will have all they desire – fail to resonate with the little one's experience. This dissonance might create a profound internal struggle, prompting infants to question their worth, or perhaps even to be very angry with the world.

The Complexity of IVF and Donor Experiences

The complexities deepen with IVF and techniques like intracytoplasmic sperm injection (ICSI), where traditional notions of consciousness may further complicate our understanding. If consciousness is present in these early stages around conception, whether assisted or not, can a developing prenate

interpret experiences or attach meaning to them? These questions venture into philosophical territory where current science may not provide clear answers.

However, clinical experience raises some interesting considerations. For instance, a colleague shared a moving case of a young girl conceived through IVF who repeatedly drew an image of a tree surrounded by several graves. Even though the girl was not consciously aware of it, this imagery poignantly reflected her mother's decision to discard the exact same number of remaining frozen embryos after her birth, suggesting a deep-seated emotional connection to loss and abandonment that the child may not consciously understand.

Similarly, another client born from a frozen embryo via ICSI developed a fixation on the diameter of gun barrels – a curious parallel to the different needle sizes used in the ICSI process – and an insatiable desire to visit frozen landscapes. In ICSI, different diameter needles are used to optimize the procedure for oocyte aspiration and sperm injection. Thinner needles can reduce damage to the oocyte and improve precision during injection, while thicker needles may be employed for better sperm handling. The choice of needle diameter can impact fertilization efficiency and embryo development.

These clinical observations, strange as they are, raise questions about whether certain experiences and their meanings can imprint on individuals at an unconscious level, even prior to the existence of a fully mature nervous system, influencing their interests and emotional landscapes throughout their lives.

Understanding these complexities, or at least having an open mind about them, can enrich therapeutic practice, enabling professionals to approach babies and adults with greater sensitivity to their unique histories and emotional narratives. By exploring the intersections of early experiences and their lasting impacts, we can better support individuals on their journeys toward healing and self-acceptance.

This framework encourages a holistic view of early life experiences, emphasizing the importance of addressing the conscious and unconscious narratives that shape our identities. It is essential to recognize that beyond the immediate experiences – whether perceived as positive or negative – an in-depth exploration of the historical and emotional context surrounding potentially traumatic events is crucial. This understanding is vital for grasping the long-term impacts these experiences may have on individuals and how we can foster healing and integration.

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The Role of Connective Tissue in Early Disturbances

A Functional Analysis Model

Gloria Quattrini

ABSTRACT

Will Davis developed Functional Analysis, which combines delicate touch – *Points and Positions* – with verbal work. Unlike other methods, it is oriented towards connective tissue rather than muscle tissue.

According to Davis, emotional and physical development in early character styles, such as the schizoid, is based on plasma (connective tissue) dysfunctions. In the first months, a fetus has only plasma to protect itself from harm. Plasma contraction is, therefore, an organism's first response to stress. Early deficiencies, such as poor nutrition or inadequate care, are registered in the connective tissue. Early structures cannot incorporate what they need and want because the plasma contraction that prevents nourishment from penetrating is already in place. This bio-emotional-nutritional-existential dysfunction can be defined as trauma. This article clarifies the distinction between shock and trauma, according to Davis. Shock entails an acute external attack that involves defense, while trauma – which is equivalent to a wound – concerns the constitution of the armor.

For trauma to occur, stress must accumulate over time, weakening the entire system so that even minor events are experienced as all-encompassing. In therapy, what is observed in the body often mirrors emotional patterns. Behaviorally, fibrous and dehydrated tissues are associated with a paucity and coldness of emotion and rigid, schematic thoughts – manifesting predominantly along the body's central line, on the belly and back. Psychologically, individuals with schizoid character traits, due to early contraction, often feel a lack of space between self and other and perceive any external stimulus as an attack on the Self. It is, therefore, important that the therapist be warm and welcoming while simultaneously maintaining appropriate boundaries.

Keywords: connective tissue, prenatal, schizoid, trauma, therapy

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> ***The great turning point for Davis was moving the focus from muscular tissue to connective tissue.***

In 1984, Will Davis, inspired by Wilhelm Reich's energy theories, the work of Lawrence Jones on Positional Release, Ida Rolf's theory on connective tissue, Charles Kelley's Radix work, and Fritz Perls' Gestalt therapy, began to develop a method called Points and Positions, which is a combination of delicate touch and verbal work aimed at re-establishing the spontaneous, energetic balance and coordination of the organism (Davis, 2012). Points and Positions is an aspect of Functional Analysis (FA), which puts the connective tissue that structures and maintains the defense system as its central focus (Davis, 2018b). Considering character armor as defined by Davis (2018b)[1], we can infer that connective tissue plays a fundamental role in the body's defense system.

From Muscular to Connective Tissue

A simple muscular contraction cannot be maintained for an extended period and, therefore, cannot cause character armor. Psychologically, chronic muscular contraction cannot be explained simply as localized muscular tension. The great turning point for Davis was moving the focus from muscular tissue to connective tissue.[2] If we consider the development of the fetus during its first months of life, we see that plasma is the only source of defense available to an organism suffering an attack. When the threat is perceived as existential, the organism's only resource is to retreat by uniformly contracting at the plasma level. Therefore, an organism's first response to stress or threat is a centralized plasma contraction. For Davis, this explains how primary plasma contractions constitute character armor (Davis, 1997-98).[3] Over time, the plasma response decreases, and neuromuscular and cognitive functioning mature, resulting in the development of character structures (Davis, 1988). Considering the evolutionary process through which defense mechanisms are constituted and the phase of pulsation in which the block occurs, character structures can be understood in terms of plasma or neuromuscular responses. Early traumas manifest as plasma contraction in character development on both biological and psychological levels (Davis, 2018b). This helps us understand not only the physical malfunction of the body, but also the emotional and cognitive disorders resulting from stress and trauma.

Since plasma contraction occurs at a primordial level, we can locate the schizoid character style at the prenatal level. Unlike Reich, Davis emphasizes that plasma contractions occur long before the organism can create defensive segments in the body (Davis, 2018b). The schizoid type responds to shock with the entire body, so no body segmentation exists. The response to the original stress and trauma is uniformly distributed throughout the body.

In the first part of the article *Biological Foundations of the Schizoid*, Davis (1997-98) shows that schizoid emotional and physical development is based on plasma dysfunctions. Reich showed that life energy flows through body fluids. When, due to trauma, the connective tissue begins to dehydrate, energy flow is hindered, thus leading to a decrease in sensations, awareness, emotions, and mental activity, and later to the development of specific physical pathologies. Therefore, the schizoid style is characterized by an interdependence between plasma tissue and psychological function; from a functional point of view, the schizoid cannot have one without the other. Its character dysfunction is equivalent to its connective tissue dysfunction (Davis, 1997-98).

Character Style and Poor Nutrition

Plasma takes nourishment from the outside and uses it to preserve itself. *Gray's Anatomy* textbook highlights the correlation between plasma and the schizoid character. It states verbatim that one of the plasma's fundamental characteristics is its spontaneous attraction of the material necessary for its

1. Davis conceives of armor in terms of areas in the body subjected to chronic stress, which thicken to resist danger at an emotional, psychological, and physical level.
2. If a stressful situation persists, the body reacts at the connective tissue level by developing more fibers to support the muscles, thus thickening them. The same effect is present at the bone level, which in turn becomes thicker on the edge to create a greater surface for the muscle to attach to, thus making it stronger and increasing its resistance to stress.

growth, development, and maintenance. Plasma is capable, under normal conditions, of nourishing itself (Davis, 2018). All forms of nourishment that come in contact with plasma are incorporated.

We can also state that there is a correlation between early character styles and poor nutrition. In psychological terms, we refer to "the lack of" (Davis, 2018). Lack can take the form of poor eye contact between mother and child, irregular or inadequate physical contact, or even inadequate nutrition. In the worst-case scenario, the mother may have suffered abuse, violence, drug addiction, or be seriously disturbed. When this lack occurs early, it registers in the connective tissue. The earlier the attack, the more primitive the defense, taking us back to the ultimate plasma contraction.

The contraction that forms around the organism's nucleus is a ring of tension around the organs: diaphragm, psoas, bladder, and intestinal tract – the organism's center. The organism does everything in its power to preserve and protect this core area through discharge or constriction. Developmentally, this mode of functioning seeks to preserve the organism's psychological capacity and evolutionary blueprint, which is already entirely present in the organism. When threatened, the organism tries to survive to maintain this life plan (Davis, 2015). It somehow suspends its growth in order to resume at a later stage, under more adequate conditions. This is important: individuals suspend functions to protect their evolutionary program, which creates symptoms. Inner vitality is still present, and it is this aliveness that leads to healing, not externally applied techniques (Davis, 2015).

According to Davis (1988), defense protects, armor prevents (1988). This is the trap in which schizoids find themselves: "I contract to protect myself because I am not receiving enough, and this is my defense mechanism to stay alive." The problem is that this defense mechanism does not allow individuals to come out of their shells and get what they need.

Schizoids have not received sufficient nourishment, which is precisely what they still need and want. The problem is that they cannot incorporate nourishment since they cannot take in foreign substances. Plasma is a critical component of this early disorder. The schizoid finds it challenging to attract nourishment; he is a loner and lives in isolation, cultivating a bizarre independence. The characteristics of the schizoid are extreme intellectualization, isolation, feeling special, a sense of superiority, mysticism, and the feeling of being a martyr. All this becomes his nourishment (Davis, 1997-98). He remains at a minimum survival level precisely because his profound theme is existential anguish.

This brings us back to the definition of plasma, which usually incorporates what it needs, but not foreign substances. In the schizoid, this process of plasma incorporation is not possible because the base of the schizoid structure carries a profound plasmatic contraction, which prevents nourishment from being attracted or offered (Davis, 1997-98). Not having received nourishment, schizoids cannot give it and obtain anything for themselves; they live in a cold world. They do not have space for themselves to receive warmth. Therapy aims to help them create this space, a warm and safe place.

We can observe a similar mechanism in the oral character, for whom what is received is never enough. We also find it in the precocious narcissist, who incorporates what is received only superficially. In early structures, the organism cannot incorporate what it needs because, structurally, contraction prevents the nourishment from penetrating inside. For this reason, Davis (1988) suggests that armor prevents and impedes action.

When we see a schizoid body, we feel that something is missing, which is different from what we notice in a simply thin body. According to the principle of functional identity, what we find in the body is also present at the emotional, cognitive, and behavioral levels. The fibrousness of the tissue is replicated in the behavioral characteristics – a paucity and coldness of emotion and rigid, schematic thoughts.

Schizoid individuals often perceive touch as an emotional invasion or attack. Functionally, the fact that they are always cold and/or do not want to be touched, even though they desire it, relates to their plasma contraction. They are unable to gain weight, no matter how much they eat. Similarly, no matter how much they are seen and acknowledged, they do not feel sufficiently nourished, and continuously feel misunderstood. From a psychological point of view, this bio-emotional-nutritional-existential dysfunction can be defined as trauma (Davis, 2018).

Defining Shock and Trauma

It is necessary to distinguish between shock and trauma; not all shocks are traumatizing. Shock is derived from the French word *choqué*, which can mean *to launch a sudden and violent attack*, while trauma is of Greek derivation and can be traced back to the word *wound* (Davis, 2017).

Trauma originally referred to *damage caused by an external event*. Shock can also connote an external event. The difference is that shock is generally traced to an external attack – something that happened to me – while trauma is considered the result of what remains of the attack (Davis, 2017).

A sudden, violent blow produces internal oscillations that disturb an organism's stability and subsistence. When an organism loses stability, it contracts to restore balance. Shock protects the organism, whereas trauma involves the construction of armor. According to Davis, trauma is an acute shock that has not been discharged, while shock is a chronic result.

When dealing with shock and trauma, it is important to know that, although they are both related to external events, at the psychological level, trauma involves a process of internalization (Davis, 2018).

In Functional Analysis, contraction is like paralysis – a mode of defense, a form of self-protection. In healthy function, an organism releases tension once the danger has ceased. Thus, shock is not inherently traumatizing, but in the schizoid structure, what was initially protected becomes chronic, preventing the organism from functioning adequately (Davis, 2018).

To summarize, if a healthy organism experiences an external shock, its system will release the tension connected to the experience. If the tension is not released, it becomes chronic and bears the quality of a wound trauma. This is why we refer to hypersensitivity to wound trauma in early disorders. Hence, people who have suffered early trauma need to be treated with great sensitivity.

A patient may describe a traumatic event that seemingly explains their problems. According to Davis (2018), a single event rarely causes all their problems. A particular quality and quantity of stress must accumulate over time to weaken the whole system. The fundamental difference is whether an event is perceived as unpleasant or traumatizing. In a system already weakened and vulnerable, a shock that would otherwise not be significant is experienced as traumatizing. For example, separation complications between mother and child at birth can trigger shock that, if experienced by an already contracted structure, triggers traumatization.

According to Davis, trauma is an undischarged, chronic shock and wound trauma is a contraction response of the plasma tissue. Schizoid structures experience trauma as all-encompassing. They live in a minimal, paralyzing way, forced into unnatural immobility by the fear of falling apart. Very often, schizoid patients describe themselves in fragmented terms, focusing on each part of their body without perceiving themselves as a totality.

Healing Wound Trauma

For Davis, once the trauma is resolved, the real therapy begins, and the patient who had previously remained trapped in the character structure is ready to begin their personal evolution. Once the trauma is resolved, we need to help patients focus on themselves and not on what happened to them. If we focus too much on the patient's trauma narrative, we will fail to see what is transformative for them. In Functional Analysis, the relationship one has with oneself is fundamental and primary, and the therapeutic work is based on going beneath any narrative. The sole purpose of the therapy is to activate the instroke process, which is when the organism regenerates by restructuring itself.

Thanks to functional work based on the instroke process[3], the connective tissue profoundly changes when trauma dissolves. Since the schizoid response to trauma is a primary plasmatic contraction that leads to dehydration, when we touch a schizoid structure, we would expect to perceive an extremely dehydrated connective tissue devoid of water. The quantity of water perceived through touch indicates the level of contraction. If the practitioner senses significantly contracted fibers that

3. Just as stress is transmitted from one part of the body to another in a systemic way through the connective tissue, by touching this tissue, we can affect the entire organism.

form a plaque that feels inanimate and cold, we can hypothesize that a very profound defense has been established. The stronger the fibrotization, the greater the dehydration and, consequently, the earlier the primary contraction. We can infer that the connective tissue's quality and characteristics indicate where the person stands in relation to themselves.

Another indication we can detect through touch is how tissues and their qualities are distributed throughout the body. If the body presents a generalized prevalence of fibrotic tissue, we can hypothesize an early character style closer to schizoid. Contracted and fibrotic dehydrated tissues will be perceived predominantly on the central line of the body: the belly and the back. The body will appear lifeless, and in extreme cases, limbs will be cold to the touch because they are deprived of vital energy.

The schizoid experience fundamentally implies failure. The initial phase of expansion toward the other led to an existential refusal. The attachment process has not occurred, and an adherence to oneself with minimal life movement remains. The primary contraction does not allow sufficient space between the schizoid's sensation of self and the perception of the other, causing a premature contraction.

Schizoids desire, yet fear, contact. Given that every organism naturally moves toward the outside world, schizoids would love to be touched, yet they renounce and fear contact while simultaneously desiring and yearning for it. Any stimulus introduced into a schizoid structure can be perceived as an attack on the self. The defense, which occurs in the plasma as a general contraction of the organism, is primal. Schizoids have such a rigid and fixed perception of themselves that, on a cognitive level, they can mistake it for strength. They feel this strength mainly mentally, so they will do everything to protect themselves from any external movement.

Considering that survival is the fundamental theme of schizoids, and that they intensely feel the terror and anger related to the threat to their existence, therapists need to be warm and welcoming, yet at the same time, set appropriate boundaries. This must be reflected in the quality of the Points & Positions technique and accompanying verbal interventions.

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Prenatal and Perinatal Influences on Adult Sexual Intimacy

How the Birth Process Shapes our Sexual Self

Sarah Dorothee Theismann

ABSTRACT

Relationships are at the core of our experience in life. As the field of psychology is beginning to understand more, our prenatal experiences may impact the quality, depth, security, and duration of our relationships, and, more specifically, our adult primary attachment bonds. One could posit that the pre- and perinatal phase of life is a relationship learning lab; the imprints we experience here may carry us forward, toward satisfaction or difficulty, to fulfilling bonds or painful struggles, and everything in between. But not only the adult primary attachment relationship in general is impacted, but the sphere of sexual intimacy may be as well. This paper explores the potential influences of the birth process on the development of the sexual self, starting with a discussion of the similarities between birth and sexuality, then exploring how birth may shape our access to sexuality as a natural force, our autonomic nervous system capacity, and the way in which interventions can shape our sexual response cycle and the consciousness states we access during sexual encounters. The ideas discussed in this article are based on observations in clinical practice over a period of 15 years, and leave room for further research on the intersection of PPN psychology and sexology.

Keywords: prenatal, sexuality, birth interventions, adult attachment relationships

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> ***The less nature was interfered with during birth, the less interference there often is with the sexual impulse.***

As the field of pre- and perinatal (PPN) psychology has been stating for 100 years, and as my colleagues have discussed in their respective articles in this issue of *IJBP*, our earliest developmental phase from pre-conception through birth may impact all aspects of our self: our personality, the way our physiology forms, our psyche, our capacity to feel safe, and, of course, our relationships (Evertz et al., 2021). To the prenate, everything she encounters is a relational experience; every event may be perceived as a meeting between the self in various stages of development and the outer world – such as the uterine wall during implantation, mom's psyche meeting and relating to the baby, nourishment entering her body through the umbilical cord, the contractions she is encountering during labor, etc. Everything informs and

shapes the developing being's implicit sense of self in relationship, how valued she feels, how deserving of love and care, how attuned to, and how met, seen, felt, understood (Castellino, 2012; Emerson, 1998). Our future relationships, especially our primary attachment relationships, may be strongly impacted by these early relational imprints. It is hypothesized that one area where this implicit relational learning is later expressed is in adult sexual relationships, which have a strong influence on our relational wellbeing and happiness throughout our adult lifespan (Rank, 1929; Reich, 1927). The sexual beings we become are shaped by our developing autonomic nervous system patterns, our attachment imprints expressed in sexual encounters, the erotic themes alive in our psyche, our sexual capacity, and so much more. This article explores the theory that these influence on our sexual self begins in the PPN phase, and is based on my clinical experience and observations. Many of the ideas presented are original, and would benefit from further research and study.

From preconception through birth, every event may be part of the puzzle that eventually creates our sexual self (S. D. Theismann, personal communications, 2012-2024). In this paper I have chosen to focus on the impact of the birth process on the formation of our adult sexual self, as opposed to other aspects of the PPN period. Of course, our sexuality is formed by many experiences in our life, and yet, just as in other aspects of our psychosomatic organism, if a certain foundational imprint is laid down during this time, it will likely exert an undeniable influence, no matter what happens later. I will first cover the connections between birth and sexuality, and then discuss different ways in which our birth can leave an imprint on our sexual self.

Birth and Sex: How Similar Are They?

Our whole pre- and perinatal history shapes us profoundly, yet our birth tends to be the most accessible and obvious place to enter the exploration of how we were impacted by our earliest history. Similarly, I have found it helpful to start at birth when supporting clients in the exploration of the PPN influences on their sexuality. While the sexual self may be shaped by the whole of the pre- and perinatal phase, it is often the most obvious to discern how we were impacted by the way our births unfolded, at least at the beginning of our exploration. As both a PPN somatics practitioner and a somatic sex and intimacy coach, I can often learn a lot about a client's sexual self, their challenges and strengths, by getting information about their birth history. The correlation between the two easily becomes apparent if one knows what to look for.

The birth process itself appears to have many similarities to the sexual act: we enter an intense and intimate process in collaboration with someone very close to us. Our bodies and our psyches are in connection, and are going through a transformative experience together while in an altered state of mind due to hormones and neurotransmitters. This altered state may also allow a deeper connection to aspects of our self that we might not contact in our everyday lives: our transcendent self, as well as more primal, animal-like states of being, and other states that are usually suppressed by our higher brain functions. These include implicit somatic memories, both of a traumatic or resourcing nature. And just as during birth, to have great sex, our higher brain function must step back; our frontal lobes must let go and allow something else to take over. Michel Odent, the obstetrician and pioneer of natural birth, has written about giving women champagne toward the end of labor to suppress the neocortex and allow the fetus ejection reflex to emerge (Odent, 1987). Similarly, if our thinking brain will not relax, alcohol or other substances can allow us to let go during intercourse and touch into more primal states, including reaching orgasm, which shares similarities with the fetus ejection reflex. Another resemblance is that both birth and sex are attachment and bonding events. How our birth unfolds has a powerful impact on our attachment to our mother, and how a couple's sexuality unfolds has an equally profound impact on their secure attachment with each other (Diamond et al., 2014). During birth and during sex, we find our way through physiological states of arousal, with waves of activation and relaxation, until the process comes to an end. As mentioned above, in birth there is the fetus ejection reflex, during sex there is orgasm, and even though birth and sex can both complete without these culminating events, the physiological capacity for them is present in us all. Due to these similarities, our implicit somatic memories from birth may arise when we engage in sex, and vice versa. The latter is acknowledged in

the midwifery world by the understanding of how a woman's sexual trauma can impact her labor and delivery (Simkin & Phyllis, 2004). This points to another connection between the two processes – namely that, of course, the same body parts are involved. Somatic memories that are held in the pelvis, the cervix, vagina, and vulva get triggered by other processes that involve these same areas. It also means we can work on our sexuality and heal our birth trauma, or the other way around. Many of my clients report improved sex lives after doing birth trauma-focused sessions (S. D. Theismann, personal communications, 2012-2024). The birth imprints that show themselves might be strengths we bring to our sex life, or they might be traumatic aspects of the birth, which our psyche is trying to integrate. Sexuality in a safe container, such as a secure relationship, may therefore present an opportunity to heal and repattern the pain some of us still carry from our births, while at the same time strengthening and deepening our primary attachment relationship. In the next section I will explore some of the specific ways in which birth can influence our sexuality.

Birth Influences on Sexuality

1 Birth as an Influence on Our Access to Sexuality as a Natural, Primal Force

Birth is a naturally unfolding, psycho-somatic-spiritual process and the same is true for sex. One of the major ways in which our birth may create an imprint on our sexuality is whether our mother was allowed and supported to let this natural process emerge, take over and take her to the completion of the birth, including post birth bonding, instead of so many interventions that she lost connection with the natural and primal aspects of birth. The intention of supporting a natural process to unfold is held by some birthing teams and not by others. Most modern obstetric practices have lost sight of this natural aspect of birth and the medical field has just recently begun to re-orient to some extent, depending on the country, hospital and attending doctor. If the mother's body was able to give birth with the natural process remaining primary, even if interventions did happen, it leaves an imprint of allowing us more access to our natural sexuality. I have worked with clients from countries with less medicalized birthing practices, who were born at home, coming from an unbroken lineage of home birthing in their ancestry. Unless other imprints get in the way, they tend to have a very simple, uncomplicated and direct access to their sexuality (S. D. Theismann, personal communications, 2012-2024). The less nature was interfered with during birth, the less interference there often is with the sexual impulse. Uncovering the natural sexual impulse is essential for satisfaction and meaning in sex, as well as for our psychological and physical health (Reich, 1927). This leads to less need for reliance on stimulation tools such as pornography, substances, and fantasy. While none of these necessarily are problematic if used in the right way, being dependent on them without more direct embodied access to sexual impulse leaves us missing out on much of the psychological and physiological benefits that sexuality has to offer.

2 Birth as an Influence on Secure Bonding and Attachment in Sexual Relationships

Another aspect of how birth can impact our sexuality is how accessible secure attachment is during intimacy. As mentioned above, both birth and sex can be seen as bonding and attachment events. The emotional attunement and closeness between mom and baby during the perinatal phase is often later mirrored in the adult's ability to be attuned and emotionally close during sexual intimacy. This can have a profound impact on the quality and duration of our primary attachment relationships, which play a central role in how physically healthy we are, how long we live, our success in life, and the level of happiness and fulfillment we experience on a continuous basis (Heller, 2021). No other factor has such a strong influence on our lives as the partner we choose and stay together with. During birth, the mother-baby dyad is in a beautiful dance of intimacy with each other, feeling each other, moving with each other, much as adults do during sex. Was the mother able to be present with herself during labor, did her birth team support her to do so, and was she able to be present with her baby? Was she able to respond to her own and the baby's impulses, and did the two of them receive the right support to navigate challenges? Did she feel safe and held so that the baby could feel safe and held as well, or were they both scared and overwhelmed? Whatever happened on the attachment level – whether mom and her baby were able

to keep a sense of security with each other – may later show up in sexuality. During birth, we learn how to be connected during one of the most intense experiences we will ever have, and go through it together. We learn to trust that the other will be there with us, and will hold us and meet us, no matter how hard it gets. If mother and baby stay connected, this can be invaluable learning for our romantic relationships – for how to be with our partner in all aspects of the relationship, and specifically during intimacy. If the mother was not adequately supported, from the inside and outside, and loses connection with her baby, this can leave an attachment imprint that may arise during sex as well. Disconnection experiences during birth tend to be overwhelming or traumatic for the baby. As these memories are touched on implicitly during sexual connection, we may unconsciously shy away from them, and might avoid deeper emotional intimacy. Being able to feel bonded and secure with our partner makes intercourse an opportunity to strengthen our relationship each time it happens, rather than a potentially disconnecting event.

3 Birth as an Influence on Our Autonomic Nervous System Capacity

Another aspect of how birth shapes our sexual self is by leaving an imprint on autonomic nervous system (ANS) capacity. The mother's nervous system states shape the baby's ANS capacity throughout pregnancy, depending on the nature of her own window of tolerance (Evertz et al., 2021). However, for most mom-baby dyads, with few exceptions, there will not have been an event of physiological equivalence to birth in the later developmental stage of pregnancy, making it a uniquely formative experience for both mom and baby on the nervous system level. It is akin to a rite of passage, and one could say that this ritual is re-lived during sexual encounters. How much intensity can we hold during sexuality and still be present, before a part of us starts to become overwhelmed? Are we able to sustain high states of energy for longer periods of time, or does our body shut down? Do we trust high energy states and feel safe in them? Sexuality asks our nervous system to be able to flow through both parasympathetic and sympathetic dominant states, with higher levels of energy than during everyday life. It also invites states of relaxation and arousal at the same time, so our energy can build slowly until it culminates in orgasm (Richardson, 2020). To let go into orgasm, we need to trust letting go of control, which means we need to have a certain level of sense of safety in our ANS. As safety diminishes, our social nervous system becomes less available, making it harder to stay emotionally connected to our partner. Birth trauma leads to freeze and dissociation states, shrinking our window of tolerance and potentially making higher states of sexual arousal inaccessible. The experience of not being able to access strong sexual feelings can be painful and leave clients feeling helpless, confused, or even as if something is wrong with them (Nagoski, 2015). For some people, the experiences they had during birth that forced them outside their window of tolerance, such as states of fear, aggression, or dissociation, have become part of their arousal patterns and erotic themes (S. D. Theismann, personal communications, 2012-2024). Being able to support clients adequately by making sense of their experience and putting it into a birth memory context, while also helping them to integrate their history, can allow clients to increase their window of sexual arousal and have more agency around their sexuality.

4 Birth Interventions as a Major Influence on the Sexual Self

The interventions that happen during birth play a prominent role in our sexual imprints. My teacher Dr. Ray Castellino was a master at both understanding and teaching birth intervention imprints, and the gross and subtle distinctions between various drug imprints and manual or surgical interventions – not only the interventions, but also the doctor's, midwife's or nurse's state of consciousness as they administer the interventions can play a role in the imprint that is created. In general, we differentiate between chemical and surgical interventions; chemical interventions (medications) change the state of being from the inside, while surgical or manual interventions change it from the outside. A chemical imprint will in most cases either slow down the system (for example, anesthesia drugs, epidurals) or speed it up (induction or augmentation agents, like synthetic oxytocin (Pitocin). This feels markedly different from natural slowing down or speeding up, which are experienced as an organic shift in the shared tempo and rhythm of mom and baby. Since the baby is exposed to the substance entering the bloodstream via the

umbilical cord, the subsequent changes tend to be experienced as an internal shift in physiology and consciousness. The baby feels different on the inside, with the sense that "I have changed," rather than the more accurate perception that "something else changed me." Yet this inner change is not natural, does not originate from the inside, and is therefore not connected to the self (Castellino, 2012).

From my observations in clinical practice, it appears that in sexuality this may look like sudden slowing down, stalling, or even coming to a complete stop (perhaps labor stopped due to too much pain medication). It can also manifest as disconnection from self, partner, and erotic energy (due to the drug's mind-altering imprint). The disconnection that occurred during labor between mom and baby may now be occurring between sexual partners on the physiological, emotional, and mental level. Clients often tell me they don't know why they lose connection with their sexual energy at certain points during the erotic encounter; it just happens and does not really make sense in the context of the present moment. In many cases this will match with a history of anesthesia given to mom during labor (S. D. Theismann, personal communications, 2012-2024).

At the same time, anesthesia imprints can also allow access to expanded states of consciousness and connection to spiritual states, especially once integrated (Castellino, 2012). In sexuality, this may appear as transpersonal experiences, which can be deeply meaningful. It is hypothesized that consciousness has learned to expand beyond natural boundaries via the anesthetic, and can enter this imprint during sexuality. A draw toward sexuality as a spiritual path, or toward mind-expanding substances during sexual encounters, are other possible ways in which this imprint can play out.

A person born to a mother who received labor-inducing or augmenting agents may later experience a sudden activation in their nervous system during sexual encounters. This increase in internal tempo can disrupt resonance with both their partner and their inner presence. A disconnected rush may be experienced, alternating with a slowing down phase – a signifier of the Pitocin imprint – that creates strong waves of contractions that do not have the same felt sense quality of natural contractions. They may also lean toward taking more risks or entering sexual encounters too quickly for their own system. It appears that Pitocin can create a "false yes" in the system, an artificial moving forward, for which the body or psyche may not be ready. With support, clients can learn how to re-attune to their natural yes and natural tempo as expressed in their lives and intimate relationships.

Since drug imprints alter the inner tempo, they have an especially strong impact on our sexual flow. How fulfilling sexuality is has a lot to do with the ability to stay with the naturally building energy of the body, in what is termed the sexual response cycle by William H. Masters and Virginia E. Johnson, pioneers in the field of sexology, and which correlates to the concept of sequencing in the field of PPN Psychology as taught by William Emerson and Ray Castellino (Masters & Johnson, 1966; Castellino, 2012; Emerson, 1998). Both notions point to the fact that we carry an imprint of how we move through events, which repeats itself again and again. It is my hypothesis that chemical imprints influence the way we move through our sexual response cycle, making it slower or faster at times, and sometimes causing stops or sudden re-starts, a phenomenon I have termed "sexual sequencing." The right support and relational contact in those moments may allow for the integration of those imprints, thus fostering more ease, coherence, and relationality.

Surgical or manual interventions, such as C-section, forceps, and fundal pressure can also create changes in the sexual arc. But in my clinical experience, these will likely be experienced less as a nervous system shift than as a change in person's response and feeling toward their partner. This means the person might experience a defensive response, or have an impulse to move closer or farther away, or might have other sudden changes in emotional responses to their partner, although they may not feel a strong shift in their inner tempo or state of consciousness.

It is possible that all birth interventions leave a strong imprint on our sexual response cycle, impacting how we move through the event of a sexual encounter (S. D. Theismann, personal communications, 2012-2024). In my view, every intervention holds the potential not only for challenges, but also for strengths – possibly gifting us capacities we might not have had without living through those interventions. Finding the gifts that our birth in-

terventions bring to our sexual encounters can be another result of doing our own PPN-oriented work.

5 Birth as an Influence on Consciousness States during Sexuality

While sexuality can support our physical, emotional and relational health, it may also provide a doorway to more presence with unconscious layers of the self and expanded states of consciousness (Odent, 2009; Richardson, 2020). In this way, our sexual experiences can become a tool for our psycho-spiritual development, similar to certain meditation practices. There are methods that utilize sexuality as a tool in this way (Nitschke, 1995). Having a birth history that forced our consciousness to contract, withdraw, disconnect, or expand can make accessing these subtle states more difficult, or in some cases easier, as mentioned on the topic of anesthesia imprints. The mother's state of consciousness during labor, and the personal and transpersonal states she accesses, provide learning for the baby, teaching her new states of being (McCarty, 2004). The way the birth team holds the birth – as a medical event or as a transformative process of psycho-spiritual dimensions – plays a role in mother's experience, and the states of consciousness she accesses. This early experience may shape how the individual, as an adult, perceives sexuality – as a transformative process, a mechanical event, or somewhere in between. If we want to support a more conscious, peaceful sexuality for humanity, with less force, violence, and trauma, making modern birthing practices more conscious and peaceful could be supportive. As my beloved teacher Ray Castellino used to say: "Our birth is a recapitulation of our conception" (Castellino, 2012). To expand on this thought, sexual encounters impact conception, which impacts birth, which impacts sexual encounters.

Conclusion

Unintegrated past experiences, especially implicit memories, invite our psyche to move toward healing and resolution. It is hypothesized that as we enter the sphere of sexuality, which can hold much similarity to our birth, these unresolved experiences may arise. This could make sexual intimacy a unique opportunity for individuals and couples to resolve their birth history and find deeper and more secure attachment. The depth of connection that arises when we touch into our pre- and perinatal imprints while in relationship to another person can create an exceptionally strong bond. Supporting our clients to make sense of what they experience during their sexual encounters as a doorway into their PPN history could allow them to understand themselves and their partners in a deeper way, and move toward sexual lives that are more fulfilling and conscious. Further research in this area would be beneficial in order to expand and deepen these ideas.

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Feeling the World Anew

Transgenerational Systemic and Prenatal Integrative Art and Body Psychotherapy

Klaus Evertz

ABSTRACT

The theory of prenatal psychology establishes an expanded nosology. Psychological and somatic illnesses in childhood, adolescence, and adulthood can increasingly be attributed etiologically to epigenetics and the psychological circumstances of pregnancy. At the same time, this theory is the basis for a bio-psycho-social medicine of the future, and thus also a new theoretical foundation for comprehensive psychosomatics, in which biological genetics and transgenerational family-systemic psychology/psychotherapy complement each other, as do the epigenetics of pregnancy and prenatal psychology. The insight of prenatal-based psychotherapy is the precise possibility of differentiating between transgenerational, prenatal, and postnatal trauma.

Keywords: prenatal psychology, fetal programming, transgenerational trauma, pregnancy conflict, art and body psychotherapy

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> ***The insight of prenatal-based psychotherapy is the precise possibility of differentiating, between transgenerational, prenatal, and postnatal trauma.***

Since 1988, the Cologne Institute for Art Therapy and Art Analysis (IKK) has offered therapy, self-awareness, and further advanced training in prenatal-based psychotherapy, art psychotherapy, and body psychotherapy, at the Dr. Mildred-Scheel-Akademie of the German Cancer Aid e.V. at the University Hospital Cologne, the International University Dresden, and the Central Further Training Seminar for Katathym Imaginative Psychotherapy and Psychodynamic Psychotherapy of the MGKB, Halle and Meisdorf, and at her own institute in Cologne.

Together with Helga Fink, since 2015 the IKK has also been offering the only university-certified advanced course in Germany in Pre- and Perinatal Psychotherapy in the Further Education Centre for Artistic Therapies at the Nürtingen-Geislingen University of Applied Sciences (HWFU). The basic principles of prenatal psychotherapy are taught in an interdisciplinary way in this advanced training for doctors and therapists, educators and midwives, and other professions. It is no coincidence that this continuing education program was first

made possible at a college for art therapy, a setting where scientific and artistic cultures, as well as therapeutic and aesthetic cultures, converge.

Artistic and scientific models are complementary cognitive approaches to the world. The subjective depth-regressive ability of the artist (view from within) and the objective ordering ability of the scientist (view from without) produce models of the world that represent, in epistemological terms, two categories that can at best complement each other, and at worst remain incompatible side by side. For some decades now, therapeutic culture has been establishing a third model in which external factors and inner psychological events are brought into direct connection through therapeutic relational arrangements. Prenatal psychology is a scientific-therapeutic model of this third kind (Janus, 2018b).

Scientific background of prenatal psychology, or the incompatibility of the parents and the inseparability of the new self

The theory of prenatal psychology (PP) (Evertz et al., 2014, 2020; Evertz, 2025) establishes an expanded nosology. Psychological and somatic illness in childhood, adolescence, and adulthood can increasingly be attributed etiologically to epigenetics and the psychological circumstances of pregnancy (DOHaD, Rotterdam 2017; Ott, 2020; Verny, 2020; van den Bergh 2014, 2020).

At the same time, this theory is the basis for a bio-psycho-social medicine of the future, and thus also a new theoretical foundation for comprehensive psychosomatics, in which biological genetics and transgenerational family-systemic psychology/psychotherapy complement each other, as do the epigenetics of pregnancy and pre- and perinatal psychology. The realization is that the biological and psychological models of our existence are not mutually exclusive, but are two different avenues of access whose approaches can complement rather than contradict each other (Assmann, 2020).

Even beyond that, PP is an offer of a new sense of being-in-the-world. Not only in psychotherapy, but also in each person's life; it is a creative task to feel our way back to the roots of our strength and energy: What do I want in this life? What am I here for? What does development mean for me? What does relationship mean to me? What relationships and systems do I come from?

The beginning of each life is social, because three people belong to this beginning: the mother, the father, and the child. The child is not only the "result" of the parents' love, but also of their incompatibility and unresolved projections onto each other. But the child is also much more than a mixture of the parents and a symbol of parental partnership.

Figure 1.
The first triangulation, conception painting by a client

Balint (1988) and Meistermann (1990, 1991) contributed the important concepts of "basic lack" and "peculiarity" (of the child) to these fundamental questions of our existence.

I would still speak of "basic strength" or "basic creativity" as the dynamic of the life force of every human being. Freud called one aspect of this "basic strength" the "driving force." This is something that everyone can feel within as the power to drive themselves forward in their development. Freud understood this as a blind, purely biological evolutionary force. In the light of PP, it is the quite perceptible and formative energy of active life affirmation of a family system against the pull of depression, suppression, trauma, and death. Each of these arise from an infinite evolutionary field of ancestors and their wealth of life experiences, which are then passed on to the next generations (Metz, 2016, 2020; Yao, 2014).

"Actually life is too hard for man" (Freud)

"In critical phases of fetal development, epigenetic factors can already represent irreversible predispositions for diseases in later life by permanently modifying the function of physiological systems via a change in gene regulation and gene expression and can thus acquire pathogenetic significance" (Schwab, 2009, p. 14).

In prenatal psychotherapy, we speak of introjects – life-limiting, development-inhibiting, disease-causing or -promoting biological-psychological patterns from the unresolved traumas of the parents that can impair ontogenesis from the very beginning in pregnancy and peri- and postnatally. We must differentiate these introjects genetic factors that influence the potential of risk activated at conception in the unique mixture of maternal and paternal DNA. This risk potential can be modified in many ways, often decisively from conception onwards, through the epigenetic factors that then arise and all the emotional circumstances of pregnancy, such as a confirmation or a change in transgenerational crisis information.

As subjective experiential qualities, we can now learn to distinguish these two levels of genetic inheritance and our own ontogeny from the first cell onwards, in deep regressive settings (Evertz et al., 2014, 2020; Terry, 2014; Emerson, 2014, 2020). Our very first cellular memory systems from our first weeks of life grow seamlessly and generatively into our first neuronal memory systems (Linderkamp, 2014, Verdult, 2014). From this perspective, no information from life experience is ever lost in living systems. And from a philosophical perspective, it is clear; ontologically, there is no separation between the biological and the psychological (Evertz, 2014b, 2020d; Assmann, 2020).

Figure 2.
The black sperm or the fear of the black infection. Paternal traumas as "life-denying messages" or maternal traumas, e.g., resulting in the rejection of one's own femininity, can show up in such images. This painting depicts the systemic trauma of three generations in which fathers left their pregnant wives.

Case vignette: a 60-year-old woman, who had faced cancer for over 20 years, reached a deep layer of feelings of great physical and emotional coldness during a body therapy regression. Although she had just felt safe and relaxed while lying down, she suddenly said: "I'm sinking deeper and deeper, and I'm getting scared; it's getting so cold." When asked if there were also images of this frightening feeling of cold, she said it had something to do with her father and with Russia. Her father had been a soldier in the German Barbarossa campaign against the Soviet Union. But it would be something beyond the horrors of war and the cold trauma of the Russian winter that her father had suffered. She was then able to report that her father, as a survivor of the Russian campaign, after much hardship, learned on the way home that his pregnant wife and their three-year-old daughter had been killed in a bombing raid on a train. He never spoke about this later.

He had then remarried, and had her and her brother as "new" children. But he was never really available for her and her brother. There was always a layer of coldness. She had also always felt her cancers as her own cold layer: that she could not feel what was happening to her, and that the cancers were an expression of the inner stress of "not feeling." With strong emotion, she came back to more warmth for herself in subsequent bodywork sessions, and the recognition of having always carried her father's huge pain associated with cold and death, and now finally being able to leave it behind, as in the depth of a grave in winter. She now felt that this pain was not actually hers, but saw that she had always thought it was "from the beginning." Now she could stand up, and felt very light and liberated. (These sessions last between 45 minutes and three hours, and only a brief glimpse of the differentiated emotional work can be described here.)

In "father journeys," i.e., guided body psychotherapeutic regressions to conception, we very often experience how traumas from our father's history can be experienced as our first introjects, whereas they had always previously been felt as something separate. This emotional differentiation allows for the inner regulation of vast mixtures of feelings that previously seemed indissoluble.

The same happens in "mother journeys" related to our mother's history. An affective clarification and purification happens. The torment of transgenerational traumatic information in the psyche is its depressive solidity, which can soften only when it is possible to sort it all out emotionally. The decisive difference in psychotherapy is whether we have experienced a trauma in our own history, or whether we consider a transgenerational trauma to be our own experience. Healing therefore happens with the physical and emotional perception of where pain, disturbance, and conflict actually originate. Only then can an integrative understanding also proceed cognitively; a trauma of our own history can be processed and often healed, whereas a trauma of our parents' generation can only be "returned."

Figure 3. *"Struggling or threatening placenta" – the placental receptivity of many of the mother's hormonal messages are well documented biologically and psychologically. (Ott, 2020) Painting by a 45-year-old woman*

"The struggling placenta" – stress in pregnancy

While "fetal programming" (Gluckman & Hanson, 2004, 2006) thus reveals the prenatal etiology of many somatic and mental illnesses from a medical point of view, PP documents that patients of all ages with the most complex disorders express intuitive references between the illness and stressful events in their conception, pregnancy, and birth in psychotherapy, and in art and body therapies on many levels. (These references are often neither adequately followed up from the anamneses in psychiatry and psychotherapy, nor perceived in the therapies, let alone addressed. This results not only in a lack of, or marginal, therapeutic success, but also in the risk of repeated stressful events in pregnancies and births, and in the later life of the next generation).

From a biological and medical point of view, essential programming here is influenced by "suboptimal fetal nutrient supply, whether due to maternal malnutrition or placental insufficiency, and increased fetal stress hormone levels, e.g. caused by maternal stress or prenatal betamethasone treatment... In addition to the placental transfer of cortisol, the transfer of maternal stress to the foetus also occurs by activating the formation of corticoliberin in the placenta..." (Schwab, 2009, p. 14).

"The studies are contradictory as to the gestational age at which prenatal stress has the most pronounced epigenetic effects. Since the fetus is sensitive at different gestational ages, the mechanisms leading to fetal programming of neuropsychiatric abnormalities seem to differ depending on the gestational age. Early in pregnancy, effects on structural and functional brain development are likely because neuroneogenesis, neuronal migration and synaptogenesis are at their peak and the hypophysis-hypothalamic-adrenal (HNN) axis has not yet begun to develop. Late in pregnancy, when neuroneogenesis and migration of neurons are largely complete, the HHN axis develops and its function is permanently altered" (Schwab, 2009, p. 16). Conscious and unconscious maternal stress thus produces changes in early embryonic brain development as well as in later fetal stress system development. Children with an enlarged amygdala have been shown to be more fearful, and thus more sensitive to trauma, than children from more secure relationships. Mothers with undetected anxiety disorders and untreated depression have more stress-sensitive children with elevated cortisol levels, which continues after birth and carries higher risk of disease (Monk, 2016; Koch, 2012; Law et al., 2021; Ott, 2020).

Figure 4. *"Prenatal stress," painting by a 60-year-old client*

Psychotherapeutic work includes a variety of methods such as bodywork, art therapy, music therapy, psychodrama, family constellations, and scenic productions, and opens many approaches to deep regressive experiences and thus also bridges to the transgenerational systemic emotional context of prenatal psychology as theory, and prenatal-based psychotherapy as practice.

Genetics of emotion

Most current psychotherapies are unable to adequately address birth or prenatal trauma. As a result, they often become trapped in unresolved transference processes, which can possibly persist indefinitely. In such cases, the client's emotional world remains undifferentiated, as illustrated in the following scheme:

1. Transgenerational inheritance (parents, grandparents, great-grandparents)
2. The love and incompatibility of parents, maternal and paternal talents and traumas, the first introjects una cum/versus the inseparability and peculiarity of the new self, beginning with the first cell
3. Pre- and peri-conceptional trauma: the psychosomatics of conception, implantation, and "discovery" (Linder, 2014)
4. Maternal and paternal trauma/introspection or distress during pregnancy.
5. Perinatal and birth trauma
6. Postnatal pre-linguistic trauma up to three years of age
7. Postnatal later trauma
8. Current crisis or illness

No fundamental growth or individuation can be sustainably developed in these conditions! Instead, what often persists is a lifelong dependence on the therapist, resembling a pre-linguistic unresolved symbiosis – akin to dependence on priests, saints, rulers, and superiors in earlier societies. Often, all that remains is melancholy, depression, and "mother-ache," which serves as a substitute for the unrealized potential of self-actualization, which remains forever out of reach. Rather than pursuing a "great love," the individual remains psychologically tied to the early mother or father. The longing for this idealized love takes precedence over the opportunity for fulfillment and growth in new relationships.

The mythologisation of the "evil mother" into the "death drive" (Janus, 2000) was never resolved in early or even later psychoanalysis. These are, of course, the life-denying introjects stemming from the unresolved traumas and unredeemed (mourning) potentials of the mother – elements that remained pervasive and unacknowledged within a patriarchy that derived its power solely from the suppression of the feminine. The feminine was so frightening that it had to be violently suppressed, and with it, one's own capacity and developmental potential for empathy and tenderness and love. Note that it was not patriarchy that suppressed the feminine from power; that phenomenon itself arose from defending the feminine from the tremendous fears and pain associated with early motherhood. It was about control, just as the suppression of the child was also "necessary" so as to not be reminded excessively of one's own early life, and the sense of powerlessness due to the baby's and toddler's mercurial driving force. Violence against children was thus always due to the misery of one's own childhood. This has been understood and integrated only gradually since the Enlightenment.

This thick and impenetrable layer of collective trauma, at first infantile but also including pre- and perinatal trauma, could only begin to be understood in the middle of the 20th century. Ferenczi, Rank, Graber, Reich, Fodor, Lake, Balint, Caruso, Fedor-Freybergh, Meistermann, Janus, and others are noted here as pioneers.

Psycho-politically, this is a social starting point for expanding democratic capacity. The larger the population that has worked through the trauma of their family systems, or at least has some level of understanding of the link between trauma and harm to self or others, the greater the capacity to be a responsible member of an open society.

Today, in method-integrative, open, and depth-regressive settings, where the client's scenic productions can be explored along with body sensations, paintings, and other experiential work, we are able to differentiate among the above-mentioned forms with great precision.

With regard to their levels of trauma, clients often say: "I have always felt this way, but that's not really my feeling. I can perceive it now as something strange that doesn't belong to my life story. Actually, it belongs to my father (or mother)."

But this first has to be felt and sensed through many body representations, inner images, and emotional atmospheres. Only then can something be released from these barriers towards a new confidence in one's own strength and creativity, which

are no longer inhibited by the depression of parents and ancestors. Intellectual understanding is not enough, but it is a step towards a holistic emotional and behavioral maturation process of the personality.

Fiction as the last place of memory – the body as the basis

How far back in life can we remember our beginnings, where the fundamental decisions are made for the existential dynamics and ontological research of our life (Verny, 2015)? And these also need to be renewed again and again in later life.

In the so-called "Sperm Journey" and "Egg Journey" by William Emerson and Karlton Terry, which I later modified as the "Father and Mother Journeys", I became acquainted with the possibilities of memory through bodily levels that I had already discovered aesthetically and emotionally, particularly in my painting,. The psychosomatic work of Karlton Terry and William Emerson, i.e., the integrative solution of the body-soul paradigm in the body psychotherapeutic experience of one's own conception makes the "full analytical situation" (Rank, 1927/1928) possible in the first place: to be able to accept conscious choice for one's own life from the transgenerational heritage, and to renew and shape it again and again in its own way.

The special feature of body psychotherapy, however, lies in the opening of our introspective intuition to the real origins of our individual existence, as an expansion of empathy with our body. We do not "have" bodies, but we "are" bodies. And our current psychosomatic state is always the result of our history. But the more consciously we can feel this, the more consciously we can really shape our world and our existence, and no longer remain trapped in the unresolved introjects of our parents and their resulting unconscious projections onto the world.

Biological transgenerational research and research on fetal programming thus proves the etiology of somatic and psychological disorders from a scientific perspective. Transgenerational and prenatal psychotherapy can differentiate these early traumatic stresses from later traumatic stresses through the patient's sensations and feelings, behavior patterns, psychological disorders, conflicts, fears, longings, and inner images, thus ensuring sustainable healing processes and expanded personality development.

The confusion between the self-experienced and transgenerational life experiences may be lifelong psychodynamic work. On the one hand, there is the "drive-dynamic" demand to realize one's very own potentials (Balint, 1998); on the other hand, there are the restraining forces (introjects) of love

Figure 5.
Scene from a "Mother's Journey" (egg journey)

for the traumatized "inner children" of the parents – in other words, not wanting (or being able) to leave them alone in their childhood destinies. As these relationships usually remain unconscious, it becomes clear how many atmospheric disturbances are present in family ties for which there is no actual blame, but for which there is often only a fight in family systems over levels of guilt and, in the worst case, new traumatization is created (Hirsch, 2004).

When children grow up, they remain in a certain sense below their possibilities in life if they must devote a lot of psychic energy to their parentified parts and they cannot really develop their authentic selves. Of course, they can also develop special skills from this task of lifelong (psychological) care for the parents, like an altruistic orientation, which is increasingly found in so-called helping professions such as medicine, therapy, social work, and education. However, there are more frequent premature breakdowns of the system for the child, as well as the adult. A child can never heal the traumas of their parents; parents can only do that for themselves.

Pregnancy as a bridging art between the generations

During pregnancy, this general problem of psychological entanglement and its associated risk of confusion becomes directly very significant and also physically very concrete.

Nowhere else are two people so intensively physiologically and thus also psychologically connected to each other as during these nine months. And nowhere else are the positive and also the ambivalent and rejecting feelings, or even traumatically generated "non-feelings" so directly perceptible and influential in a relationship, as well as manifesting themselves later in life in ways that can be felt and remembered in real terms.

The pregnant woman thus actually integrates at least three "foreign levels," and establishes immune tolerance at implantation and during pregnancy between:

- The "stranger" of the man (and his family history)
- The mother's own split-off "stranger" (unresolved introjects from her own history, which always tend to be life-negating)
- The "strangeness" of the child's peculiarity already beginning with conception as a unique mixture of father and mother at this point in time, and as a "strange" new third living being with its own history beginning from conception!

The most important intrauterine process from an attachment analytic point of view (Raffai, 2014) is the biological development of growing out of the mother's womb, and the psychological development out of the boundlessness, unity, and sameness of maternal and fetal experiences – out of the mother's psychic realm into a self/ego differentiated from it (Raffai, 2014, p. 556).

Figure 6.
"When does birth actually end?" Birth trauma and not being able to come into the world

The pregnant woman is more likely to react to all these challenges with physical symptoms if too much anxiety and depression are unresolved. Pregnancy vomiting, bleeding, premature contractions, retarded fetuses, prematurely aging placenta, placenta praevia, serial abortions, HELLP syndrome, intrauterine infant death, infertility, and artificial insemination are ultimately very different or also jointly occurring physical/emotional emergency solutions emerging from often unrecognized inner stress.

In terms of psychodiagnosis, we often note the following factors with these symptoms: dependency conflicts with the parents, psychological immaturity, pre- and perinatal trauma in the family system, strong psychosocial stress factors in pregnancy, etc. (Raffai, 2014, p. 557; Evertz, 2014, 2016, 2020a).

Very extreme pregnancy ambivalence manifests in abortion, abortion attempts, or abortion fantasies:

- Unconscious motive: to escape the threat of annihilation by merging with the object
- Unconscious dynamics: reenactment of one's own early trauma – longing for control over death
- Unconscious hope: to break the cycle through abortion, to get rid of the "inner fear child" (Meistermann, 1991; Evertz, 2014, 2014c, 2020a)

The most common psychodynamic issue in pregnancy conflict is thus confusion between the "inner" traumatized child (i.e., the early childhood, pre- and perinatal psychic introject of the father and mother's history (and their family history), and the real child growing in utero (Evertz, 2014c, 2014d, 2016).

Excellent approaches to treat pre- and perinatal and early childhood trauma in adult and children's therapy include bodywork (Emerson, 2014, 2020; Marlock, 2006, Terry, 2014; Platz 2006) and pictorial levels (Evertz, 2014, 2015a, 2020a, e):

- Artistic-aesthetic
- Body psychotherapy
- Art psychotherapy
- Psychotherapeutic

Prenatal introjects are so fundamental in biography that they have not yet become a general topic of therapy related to concepts of fate and fantasies of fate, i.e., religiously or in other forms of repression. They are so strongly declared in our emotional life as "always having been there" that many people do not succeed in clarifying and differentiating them from the actual "self," – the "peculiarity" that lies below – which Balint (DATE) and Meistermann (DATE) described. Alternatively, they are understood only during the crises of later life, and addressed in a conflict-solving way.

In today's baby and child therapies, however, it becomes clear that the earlier symptoms are also subjected to a thorough anamnesis of prenatal and birth conditions, the easier and faster it is for babies and children to heal what takes months and years in later adult therapies (Terry, 2014, Renggli, 2013, Evertz, 2020g).

Art or the inseparability of the self

Art is one way, and perhaps the most beautiful, of finding solutions to the incompatibility of parents in the inseparability of the self (Janus & Evertz, 2008).

Meistermann-Seeger, a pioneer of prenatal psychology, put it so beautifully: "The first relationship of a human being, even if it is only a germ, is with his parents."

In her Balint-oriented extension of focal therapy, it is a matter of formulating the fundamental deficiency of a human being that arises from the incompatibility of parents. In this incompatibility lie the talent and conflict patterns of an ontogenesis. Through deep regressive work, one's own decision for one's own life is consciously renewed, confirmed, and acknowledged.

> "The two genetic gifts of the parents must be united by the child without contradiction. This terrible burden (and this wonderful gift) is imposed on each of us. At conception, the child is thrown into the relational web of the parents' partnership with all its lust, greed, grief, fear, excitement, and ecstasy. Regarding its dowry, the child is identified with the father just as much as with the mother. It can only establish an object relationship with the child through the internalized father. If this does not happen, the child must remain in this burying, drilling itself into the mother. It becomes indissolubly dependent on her." (Meistermann-Seeger, 1991)

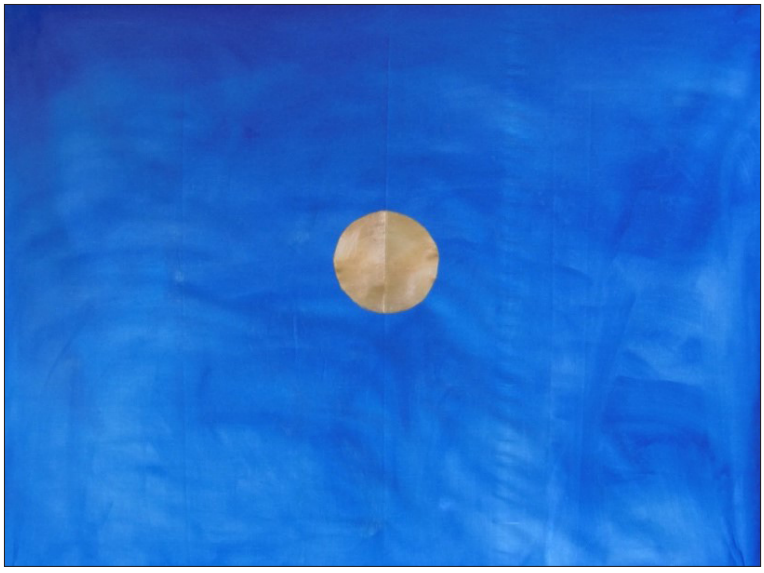

Figure 7. *"The inseparability of the new self," painting by a client after deep regressive processes.*

From an art-analytical point of view (Evertz & Janus, 2002; Evertz, 2008, 2015b, 2017b), every painting, as well as every work of art in general, bears traces of this lifelong work of enlightenment in aesthetic patterns, all of which can also be read in terms of bonds and relationships (Oberhoff, 2002; Parncutt, 2009). Painting images as self-perception symbolic surfaces (Evertz, 2002, 2008, 2015a, 2015b, 2017a) provides information about the contact visions to the world and all its objects, especially living beings and people. One's own vitality and security in an openness to the world, which can be developed and expanded over a lifetime, is initially always related to one's

Figure 8.
A 4 × 3 m acrylic painting by a client after a body psychotherapy parenting journey.

earliest relationship and attachment patterns (Evertz, 2014, 2020).

Thus, every therapy is also art, in that the client's search for being an artist within their biography, their search for their origin, is empathically accompanied by the therapist in the knowledge that, ultimately, it can only be about levels of creative love (Evertz 2014b, 2020b, c, d, f).

Original sin is a theological, theopoetic (Sloterdijk, 1998-n.d.), and pre-scientific term for a transgenerational burden in family systems. Today, we do not speak of guilt or sin but of traumatic stress, which initially always leaves open whether it is a perpetrator trauma, victim trauma, or a mixture of both. Nevertheless, the term "original sin" still helps because it clearly shows earlier generations' powerlessness and helplessness to deal with a transgenerational psychological torment whose psychological location was still impossible to map (Evertz, 2020e; Janus, 2013, 2018a, b).

PP is a bridge between generations. For a long time, pregnancy was not a psychological experience but a process that could supposedly be described only in biological models. Thus, the psychological link between the psyches of the previous and current generations was missing. PP represents the psychic continuity in human existence and enables greater empathy with ourselves (Evertz 2013, 2014a).

In *Basically Good: Another History of Humanity* (2019), Bregman describes the strange contradiction between our predominant altruistic abilities and their constant devaluation through the message that humans are "bad." Bergman provides no real justification for this contradiction in human behavior but empirically proves the phenomenon very well.

PP can very well explain why unresolved transgenerational background fears always and still promote our apocalyptic fears more than a genuine assessment of our actual social achievements and possibilities.

However, that is another psycho-historical and political extension topic through PP theory (Evertz, 2013, 2014, 2017, 2020; Janus 2013, 2018a, b).

■ ■ ■

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The Relationship Between Perinatal Stress and Newborn Food Allergy

A Somatic Experiencing Perspective

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ABSTRACT

An increasing body of evidence highlights the profound impact of maternal prenatal stress on the development and health of children. Investigations into the relationship between prenatal stress and the incidence of food allergies in newborns have, however, produced inconsistent findings. The specific mechanisms by which maternal prenatal stress contributes to food allergies in newborns remain largely uncharted. This study endeavors to clarify this relationship, introducing coupling dynamics as a viable explanatory mechanism. In a pioneering effort, it explores the association between various types of stress during pregnancy and infant food allergies. The study detailed the stress levels of 52 mothers and noted any food allergy symptoms in their children. Our analysis indicates a significant link between prenatal stress and the occurrence of food allergies in newborns during their first six months. Notably, work-related and physiological stress emerged as key factors in infant food allergies. These insights substantially advance our understanding of the adverse impact of prenatal stress on children's health and development, underscoring the imperative to devise interventions that reduce prenatal stress and enhance newborn immune function.

Keywords: pregnancy stress, prenatal stress, food allergy, Somatic Experiencing

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> ***By embracing a holistic methodology that encompasses both physiological and psychological aspects of food allergies in prenatal stress, this research sets the stage for substantial improvements in infant health and wellbeing.***

Intrauterine exposures can have long-lasting effects on children, significantly influencing their developmental trajectory both pre and postnatally (Szekeres-Bartho, 2002). Among these intrauterine exposures, maternal prenatal stress is increasingly recognized as a critical factor impacting both the physical and psychological development and health of the infant (Cookson et al., 2009; Mulder et al., 2002; Zijlmans et al., 2015). Recent studies have identified pregnancy-related stress as a potential contributor to the increased risk of food allergies in newborns (Phelan et al., 2015; Polloni et al., 2015; Smejda et

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al., 2018). Food allergies occur when the body's immune system erroneously identifies a harmless food as a threat (Sicherer & Sampson, 2010). However, the specific mechanisms underpinning the relationship between maternal prenatal stress and the development of food allergies in children have not been fully elucidated. The current study was conducted to clarify the association between maternal prenatal stress and offspring food allergy, proposing the coupling dynamics theory of Somatic Experiencing® as a possible explanatory mechanism. Additionally, this research pioneers an examination of how various types of pregnancy-related stress are associated with the development of food allergies in infants. This approach marks a significant advancement in understanding the complex interplay between prenatal environmental factors and early childhood health outcomes.

Infant Food Allergy

Food allergy constitutes an adverse health effect characterized by a specific immune response to dietary antigens, which can result in acute and potentially fatal reactions (Sicherer, 2002). In infants with food allergies, ingestion of the allergenic food triggers the immune system's release of chemicals like histamine, leading to symptoms such as rash, hives, vomiting, diarrhea, and respiratory difficulties (Chen et al., 2011). Food allergies are relatively prevalent, affecting approximately 2% of adults and 6-7% of children (Panel, 2010). The World Allergy Organization estimates that around 8% of infants and young children worldwide suffer from food allergies. Generally, the likelihood of developing food allergies is higher in infants and young children with a familial history of allergies, or other allergic conditions like eczema or asthma. Nonetheless, food allergies can develop at any age, regardless of family history (Tan et al., 2012). Several potential etiological factors for food allergies have been identified, including genetic predisposition, exposure to allergens, and the presence of other medical conditions (Ashley et al., 2015; Björksten, 2005; Patel & Volcheck, 2015). There is evidence to suggest that food allergies can be familial, with a higher incidence observed in infants with a close relative who has a food allergy. Genetic studies have unearthed associations between certain genes and the propensity for food allergies (Björksten, 2005). Early exposure to allergens, either through diet or environment, may increase children's risk of developing food allergies, and additionally, children with specific medical conditions, such as eczema or asthma, are at elevated risk of developing food allergies. However, it is crucial to recognize that the exact causation of food allergies is often multifactorial, and not always clearly understood. Recent research has implicated prenatal stress as a contributing factor to the risk of developing postnatal food allergies.

Stress During Pregnancy

Pregnancy represents a period of substantial hormonal and physiological alterations, rendering women particularly susceptible to stress (Kapoor et al., 2006; Mulder et al., 2002). This phase involves significant physical, emotional, and social transformations, often making it a challenging and stressful experience (Soma-Pillay et al., 2016). The hormonal fluctuations during pregnancy can influence a woman's mood and emotional state, thereby increasing her vulnerability to stress and anxiety (Bjelica et al., 2018; Ross et al., 2004). The pregnancy period can be demarcated into several critical stages, each associated with unique stress factors. The first trimester is often marked by physical and emotional symptoms such as nausea, fatigue, and mood swings, contributing to heightened stress levels (Rofe et al., 1993). While the second trimester may bring physical and emotional stability as the initial symptoms wane, it can also usher in increased stress and anxiety related to childbirth preparation and parenting decisions (Shapiro et al., 2017). The third trimester is typically the most physically demanding and stressful, characterized by continued significant bodily changes associated with the baby's growth, leading to discomfort, sleep difficulties, and concerns about childbirth and newborn care (Davis, 1996; Records & Rice, 2007; Nekoee & Zarei, 2015).

Pregnant women are exposed to a variety of external stressors, including financial strains, relationship stresses, work-related pressures, and social and cultural expectations (Cardwell, 2013; Katz, 2012; Palagini et al., 2014). Physical discomfort such as nausea, fatigue, and back pain, compounded by hormonal changes, can cause mood swings, anxiety, and depression (Lenz et al., 1997;

Palagini et al., 2014; Glazier et al., 2004). Relationship dynamics may also be strained due to differing expectations and concerns about parenthood (Khaled et al., 2021). Financial concerns, particularly the costs associated with pregnancy and childbirth, can be a significant stressor, especially for those with limited resources (Shishehgar et al., 2014). Work-related pressures may intensify as women balance job responsibilities with the demands of pregnancy (Katz, 2012). Additionally, societal and cultural norms regarding pregnancy, childbirth, and parenting can further contribute to stress (Thorpe et al., 1992). While some level of stress and anxiety is normal and expected during pregnancy (Soma-Pillay et al., 2016), excessive or chronic stress can adversely affect both the expectant mother and the developing fetus. Chronic stress during pregnancy has been associated with a heightened risk of preterm labor (Schetter, 2009), low birth weight (Lima et al., 2018), increased susceptibility to mental health issues like anxiety and depression (Rubertsson et al., 2014), and adverse pregnancy outcomes such as preeclampsia and placental abruption (de Paz et al., 2011; Yu et al., 2013). It can also impact newborn immune system function, and increase the risk of infections in newborns (Costello et al., 2003). Exposure to prenatal stress has been shown to alter the production of immune cells and activation of immune pathways in newborns (Gennaro & Fehder, 1996), potentially leading to long-term effects (Romero-Gonzalez et al., 2018). Additionally, evidence suggests that prenatal stress may elevate the risk of allergic diseases in newborns, including asthma and allergies (Andersson et al., 2016; Flanigan et al., 2018; von Hertzen, 2002).

Exposure to Stress during Pregnancy and Newborn Food Allergies

Emerging evidence suggests a potential association between stress during pregnancy and an increased risk of food allergies in infants. Studies by Phelan et al. (2015) and Polloni et al. (2015) have indicated that elevated stress levels in pregnant women may correlate with a higher incidence of food allergies in their offspring. Polloni et al. (2015) found that pregnant women reporting high stress levels had a greater likelihood of bearing infants with food allergies. Similarly, Phelan et al. (2015) identified high pregnancy stress as a significant predictor of gastrointestinal illness in newborns. A comprehensive review by Andersson et al. (2016) provided evidence supporting a positive relationship between prenatal grief and child asthma, and noted associations between prenatal stress and the prevalence of atopic dermatitis, allergic rhinitis, and elevated blood IgE levels. More recently, Flanigan et al. (2018) linked prenatal psychosocial stress to an increased risk of asthma and allergic outcomes in offspring. Complementing these review articles, empirical studies, such as those by Lukarinnen et al. (2021), have demonstrated a positive correlation between maternal mental health during pregnancy and the prevalence of postnatal food allergies. Specifically, Lukarinnen and colleagues (2021) showed that symptoms of depression and anxiety during pregnancy were predictive of food allergy diagnoses in infants at six months of age. However, Smejda et al. (2018) presented contrasting findings, failing to establish a significant link between perceived prenatal stress and infant food allergies at around one year of age. This discrepancy highlights the need for further research to conclusively determine the relationship between prenatal stress exposure and infant food allergies.

One hypothesis posits that stress during pregnancy may impact the immune system of the developing fetus, leading to changes in immune cell production and the activation of immune pathways (Schreier & Wright, 2014). Pregnancy stress can result in altered cortisol levels and delayed secretory immune globulin A (sIgA) production in both mothers and fetuses (Kang et al., 2018), potentially impairing infant immune function (Beijers et al., 2014; Veru et al., 2014). This alteration may affect T helper cell differentiation (Von Hertzen, 2002) and disrupt the hypothalamic-pituitary-adrenal (HPA) axis (Klinnert et al., 2001; Wright, 2007). Additionally, stress may exert effects on the neuroendocrine and immune systems (Morgan & Martinez, 1992; Van Lieshout & MacQueen, 2008; Wright et al., 1998), potentially elevating the risk of food allergies in infants. Another potential mechanism involves the impact of stress on the development of the gut microbiome – the complex community of microorganisms inhabiting the digestive system (Zijlmans et al., 2015) – which could influence the likelihood of food allergies in infants (Gao et al., 2021).

Somatic Experiencing Theory to Explain the Relation between Pregnancy Stress and Infant Food Allergy

In the realm of psychophysiological research, the framework of Somatic Experiencing and coupling dynamics presents a novel perspective in understanding the mechanisms underlying the relationship between pregnancy-related stress and infant food allergy. Somatic Experiencing, pioneered by Levine (1977), is an innovative therapeutic approach that addresses chronic stress and post-traumatic stress symptoms through focusing on internal bodily sensations, encompassing both visceral (interoception) and musculoskeletal (proprioception and kinesthesic) awareness. This method delves into the deeper regulatory functions of the nervous system, particularly targeting the autonomic nervous system (ANS), the emotional motor system, the reticular arousal systems, and the limbic system (Payne et al., 2015).

Somatic Experiencing posits a Core Response Network (CRN) comprising the autonomic nervous system, the limbic emotional system, the emotional motor system, and the reticular arousal systems. These systems are intricately interconnected through multiple feedback and feed-forward loops, forming a complex dynamical system capable of entering various discrete functional and dysfunctional states. Recent theories of stress emphasize cognitive appraisal mechanisms (Cohen, 2014); however, subcortical rapid emotional responses involving structures like the amygdala complex and hippocampus are gaining recognition. The understanding of the autonomic nervous system has evolved significantly, transitioning from a simplistic linear reciprocal model to a complex dynamical system with elaborate self-regulatory behaviors integrated with higher brain centers (Bernston & Cacioppo, 2007).

In mild stress scenarios, the sympathetic nervous system is activated with a corresponding decrease in vagal tone, leading to a reset of the central nervous system and resilient functioning (Payne et al., 2015; Porges, 2004). However, intense or prolonged stressors can elicit a more robust sympathetic response, and, in the absence of an adequate defensive response, can precipitate chronic stress conditions. Under extreme stress, paradoxical responses of the autonomic nervous system, including simultaneous activation of sympathetic and parasympathetic branches, have been observed (Gellhorn, 1968). Such phenomena are hypothesized to underlie "tonic immobility," observed in both animals and humans (Nijenhuis et al., 1998). Levine (1986) characterizes stress as a failure of the complex dynamical system of the ANS to return to normal functionality, with a fully functional CRN preventing the accumulation of allostatic load in challenging environments.

The concept of coupling dynamics, as developed by Levine et al. (2003), posits that the sensations, emotions, and behaviors experienced during stress may become linked (or "coupled") with the corresponding situation, leading to persistent dysregulation. This theory suggests that during traumatic or stressful events, physiological arousal becomes dysregulated, potentially causing individuals to become "stuck" in a heightened state of arousal, which manifests in physical, emotional, and psychological distress. In this framework, sensory stimuli accompanying dysregulation can become overcoupled with the experience, triggering stress responses in the absence of the original stressor.

Applying this perspective to the relationship between pregnancy stress and infant food allergies, we propose an overcoupling mechanism between maternal stress and food. When a pregnant woman experiences stress, the stress hormones, transmitted to the fetus via the umbilical cord, may become associated with the foods consumed during these periods of stress. Consequently, after birth, when the infant is exposed to these foods through breast milk, they might elicit stress responses, leading the baby to perceive these foods as harmful. This misidentification can trigger histamine release, a key chemical in allergic reactions (Averbeck et al., 2007), potentially causing the immune system to erroneously identify and react against these foods, which manifests as allergic reactions. This novel hypothesis offers a unique lens through which to examine the etiology of infant food allergies in the context of prenatal stress exposure.

The Present Study

The existing body of research robustly establishes that stress experienced during pregnancy is associated with adverse outcomes in newborn immune functioning (Ruiz & Avant, 2005). Additionally, emerging evidence suggests a potential correlation

between maternal stress during pregnancy and the incidence of food allergies in neonates (Phelan et al., 2015; Polloni et al., 2015). In light of these findings, the present study aims to replicate and extend this research within a non-WEIRD (Western, Educated, Industrialized, Rich, and Democratic) population, examining the relationship between pregnancy stress and the development of food allergies in infants.

A novel aspect of this study is its focus on how various types of stress experienced during pregnancy may differentially impact immune system function in infants. This approach is predicated on the hypothesis that stress during pregnancy is not only a potential factor in the development of food allergies in infants, but also a predictive indicator of an infant's risk of developing such allergies. The study seeks to comprehensively explore the connections between distinct forms of pregnancy stress and the manifestation of food allergies in infants.

Through this investigation, we aim to contribute to the nuanced understanding of how prenatal stress influences immune system development and the propensity for allergic reactions in early childhood. This research is particularly significant as it ventures into examining these relationships in diverse cultural and socioeconomic contexts, thereby offering a more global perspective on the impact of prenatal stress.

Method

Participants

Fifty-two mothers aged 25 to 45 participated in the study. Participants were from middle to high socioeconomic backgrounds. Nine infants (17%) were born preterm and 43 infants (83%) were born at full-term. The babies ranged in age from six to 30 months (M = 16.7, SD = 5.86) at the time of the assessment. Each participating mother was married to their baby's biological father. The educational attainment of mothers was as follows: 2% high school graduate, 42% undergraduate degree, 36.5% master's degree, 11.5% PhD degree, 2% specialization in medicine. Of the 52 mothers, 6% did not report their educational attainment.

Procedure

The data was collected online from 2021 to 2022. The mothers contacted the clinic to seek counseling on their infants' sleep disturbances, feeding difficulties, relational problems, as well as on healthy child development, and pre- and post-natal traumas. All mothers signed a consent form allowing the information they provided to be used for research purposes, and completed a questionnaire asking about their stress levels during pregnancy and their babies' health conditions (Appendix A). Mothers then participated in one-to-one interviews with the first author of this paper, a trained developmental psychologist.

Materials

Stress Assessment

The stress mothers experienced during pregnancy was assessed by asking mothers: "Was there a period during your pregnancy where you felt anxious/stressed for a month or longer?" They responded on a scale from 0 (not at all) to 5 (a lot). The type of stress mothers experienced during pregnancy was identified based on maternal reports during one-to-one interviews. The details about different stress types are provided in Appendix B.

Assessment of Infant Food Allergy

To assess whether infants experienced food allergies within the first three months of life, mothers were asked: "Did your child exhibit any food allergy symptoms in the first three months after birth?". Mothers were given the following response options: Yes, No, Other (please specify).

Results

Table 1 demonstrates frequencies of infant food allergy, preterm and cesarean birth rates, and frequency of stress types. Table 2 shows the correlations between variables of interest. As seen in Table 2, stress during pregnancy is related to having food allergies (r_S = .33, p = .02) in the first six months of the infant's life. Furthermore, mothers who experienced higher levels of stress during pregnancy were more likely to have preterm births (r_S = .43, p = .002), which was further positively associated with food allergy diagnoses (r_S = .29, p = .04). Although prenatal stress was positively linked to cesarean birth (r_S = .29, p = .02), it was not associated with newborn food allergies (r_S = .21, p = .11).

Table 1. *Descriptive Information*

	n	%
Food allergy	19	37
Preterm birth	9	17.3
Cesarean birth	37	71.2
Work-related stress	9	17.3
Physiological stress	17	33
Safe environment	11	21.2
Grief	1	2
Lack of inclusive relationship	12	23
Trauma	2	4
Fear of miscarriage	6	12
Stress about accepting the baby	13	25
Stress due to medicine use	12	23
Anxiety	1	2
Stress about nutrition	1	2
Stress due to medical intervention	1	2

Parenting Stress and Newborn's Food Allergy

A Mann-Whitney *U* test was conducted to determine whether mothers of newborns with food allergies experienced higher stress levels during pregnancy. The results were in the expected direction, and significant ($U = 192$, $p = .02$). Mothers of infants with food allergies ($M = 3.63$, $SE = .21$) experienced higher levels of stress during pregnancy compared to mothers of infants without food allergies ($M = 2.73$, $SE = .24$).

Logistic regression analyses were conducted to test whether stress during pregnancy predicts the risk of developing food allergies in infancy when controlling for preterm birth. Pregnancy stress significantly predicted the prevalence of food allergies in newborns, $b = .62$, $Z = 2.34$, $p = .02$. Preterm birth and stress during pregnancy explained the significant variance in newborns diagnosed with food allergies, $R^2 = .11$, $\chi^2(2) = 7.58$, $p = .02$.

Relations Between Different Types of Pregnancy Stress and Food Allergy

Table 3 demonstrated the relationship between different types of pregnancy-related stress and food allergies. As seen in Table 3, food allergies are positively related to work-related stress ($r_s = .29$, $p = .04$) and physiological stress ($r_s = .32$, $p = .02$). Furthermore, newborns whose mothers experienced higher levels of stress during pregnancy due to medication use were more likely to experience food allergies ($r_s = .25$, $p = .07$).

A Chi-square test of independence was performed to further investigate the relations between stress and infant food allergies. First, a significant relation was found between work-related stress and food allergies, $\chi^2(1, N = 52) = 4.26$, $p = .04$. Infants of mothers who experienced work-related stress during pregnancy are likelier to have food allergies. Next, physiological stress was related to infant food allergies ($\chi^2(1, N = 52) = 5.41$, $p = .02$), such that mothers who experienced higher physiological stress during pregnancy were more likely to have newborns with food allergies.

Table 2. *Correlations Between Study Variables*

	1.	2.	3.	4.
1. Maternal prenatal stress				
2. Infant food allergy	.33*			
3. Preterm birth	.43**	.29*		
4. Cesarean birth	.29*	.21	−.29*	
5. Infant age	−.16	.12	.07	.01

Note: * $p < .05$, ** $p < .01$

Table 3.
Correlations Between Different Types of Stress During Pregnancy and Food Allergy

Stress Type	Food allergy
Work-related stress	−.29*
Physiological stress	−.32*
Stress due to lack of a safe environment	.01
Stress due to grief	.11
Stress due to lack of inclusive relationship	.04
Stress due to transgenerational trauma	−.06
Stress due to fear of miscarriage	−.10
Stress about accepting the baby	−.21
Stress due to medicine use	−.25
Stress about anxiety	.11
Stress about nutrition	−.19
Stress due to medical intervention	.11

Note: * $p < .05$

Discussion

This study demonstrates a significant association between stress experienced during pregnancy and mothers' reports of food allergies in their babies during the first six months of life. Our finding that prenatal stress is associated with infant food allergies is in concordance with previous research associating exposure to stress during pregnancy with allergic diseases in newborns. Furthermore, for the first time, this study identified work-related and physiological stress as stressors related to infant food allergies.

The physiological association between prenatal stress and the development of food allergies in infants can be clarified through several distinct mechanisms. Initially, exposure to heightened stress during pregnancy, and the consequent increase in cortisol levels, may adversely affect immune system development and the hypothalamic-pituitary-adrenal (HPA) axis in the developing fetus. This disruption could potentially elevate infants' risk of developing food allergies, as Phelan et al. (2015) suggested. Furthermore, the gut microbiome, a crucial component for optimal immune system function, might be detrimentally impacted by increased stress levels, subsequently leading to a heightened risk of food allergies in infants (Gao et al., 2021). Additionally, an indirect mechanism may also play a significant role. Elevated stress levels during pregnancy are often associated with various lifestyle factors, including the consumption of caffeine, disrupted sleep patterns, smoking, and a tendency towards reduced physical activity, less use of vitamins, and unhealthy eating habits (Auerbach et al., 2014). Such behaviors, prevalent during periods of elevated stress, could potentially influence the physiological development of the fetus (Phelan et al., 2015). This indirect pathway highlights the multifaceted impact of maternal stress on fetal development, extending beyond direct physiological changes to encompass broader lifestyle factors that may collectively contribute to an increased risk of food allergies in infants. This complex interplay of direct and indirect influences underlines the importance of a comprehensive understanding of the various factors at play in the relationship between prenatal stress and infant health outcomes.

This article introduces a novel perspective to understand the relationship between prenatal stress and newborns' incidence of food allergies. We propose the integration of Somatic Experiencing and coupling dynamics, as conceptualized by Levine et al. (2003), as a potential underlying mechanism for this association. According to the theory of coupling dynamics, stressful situations activate the arousal system, leading to heightened arousal levels. In this process, stress may become intricately overcoupled with specific stimuli, such as particular food items. We posit that this overcoupling mechanism may extend to the development of food allergies in newborns. In scenarios of maternal prenatal stress, we hypothesize overcoupling between the mother's stress and the nutrients she consumes during these periods of heightened stress. Consequently, postpartum, infants may

perceive these foods, which are linked to maternal stress, as toxic, responding as if a stressful event is occurring. This suggests that infants might exhibit stress responses even without direct stressors upon encountering these overcoupled foods. However, it is important to note that the current study lacks the statistical power to test this hypothesis definitively. Nonetheless, anecdotal evidence from maternal reports offers preliminary support for this assumption. For instance, one mother, referred to as "Mother A," experienced significant nausea and work-related stress during her pregnancy. Interestingly, her newborn was later found to be allergic to eggs and dairy products, which she consumed in large quantities while pregnant. She had not previously consumed dairy products but began doing so because she believed they were necessary for healthy fetal development. This case illustrates a potential overcoupling between work-related stress, nutritional stress, and the consumption of dairy products. Similarly, "Mother I" reported an unplanned pregnancy and intense workplace stress in the early months. She consumed large amounts of walnuts, pomegranates, and tomatoes during that time, and her infant subsequently developed allergies to these same foods. Moreover, the baby showed resistance to supplementary foods, and the father's inability to regulate his emotions, stemming from his early childhood feeding experiences, suggests that the stress-food coupling that was initiated prenatally may have continued into the postnatal period.

These instances provide anecdotal evidence supporting the hypothesis of overcoupling between maternal stress and specific food consumption during pregnancy, potentially leading to the development of food allergies in infants. This novel approach underscores the complex interplay between maternal experiences during pregnancy and the subsequent health outcomes of their offspring, warranting further investigation into the mechanisms driving these associations. This study was the first to investigate the associations between different types of prenatal stress and infants' food allergies. We assessed different types of stress, such as work-related, partner-related, physiological, and others. Among different stressors, physiological and work-related stress correlated with newborn food allergies. Work-related stress has been identified as one of the significant sources of stress, and has been linked to increased stress levels and decreased quality of life (Moustaka & Constantinidis, 2010). Given that this type of stress is more chronic in nature, its adverse effects may be more prominent than other stress types, and allow more time for coupling to occur. During prolonged work-related stress, the foods the mother consumes may be matched with stress, and the infant may develop allergies to that particular food. Similar to work-related stress, physiological stressors may be more prolonged over time, and bind with certain foods consumed at that time. In agreement with our view, Flanigan et al. (2018) provided evidence for the adverse effects of cumulative stress during pregnancy on childhood allergic diseases.

Furthermore, stress due to the use of medicine tended to correlate with infant food allergies as well. One potential reason might be that certain medications may alter the microbiome of the mother and child, which may influence immune system function and allergic sensitization (Metzler et al., 2019). Another reason might be that mothers may take pills or medicine for longer durations of time and experience stress over the period. We did not find significant correlations between newborn food allergies and the lack of a safe environment, grief, absence of inclusive relationships, transgenerational trauma, the risk for miscarriage and preterm labor, difficulties accepting the newborn, anxiety, substance use, nutrition, and medical intervention. These stressors may be more short-term and less intense than other types of stress. Furthermore, the small sample size and low prevalence of some stress factors may explain the lack of a significant relationship.

Strengths and Limitations

This study's exploration of the various types of stress and their relationship to newborn food allergies significantly contributes to a nuanced understanding of this complex field. Additionally, the collection of maternal anecdotes regarding stress experiences and the inclusion of a non-WEIRD sample further augment the robustness of this research. Importantly, this study pioneers an attempt to explain the link between prenatal maternal stress and infant food allergies from a novel theoretical perspective, employing the coupling dynamics theory of Somatic Experiencing. Despite these strengths, a few notable limitations must be acknowledged. One primary limitation is the ret-

rospective nature of the stress assessments, which did not focus on specific periods during the pregnancy but rather on the overall experience of stress as reported by the mothers. This approach may obscure the nuances of stress experiences at different stages of pregnancy. Future research would benefit from a more detailed temporal assessment of stress levels and their correlation with the development of food allergies, ideally supplemented with medical confirmation by a pediatrician or allergist.

Additionally, the relatively small sample size and the specific socioeconomic background of the participants (middle- to high-level) may limit the generalizability of the findings. A more diverse sample in terms of size and socioeconomic status would enhance the applicability of the results across a broader population. Furthermore, it is critical to emphasize that this study, akin to previous research in this area, is observational. Consequently, it does not establish a causal relationship between prenatal stress and infants' subsequent development of food allergies. The study lays the groundwork for future research, which is essential to validate these findings and to delve deeper into the potential mechanisms through which stress during pregnancy might influence the development of food allergies in infants.

Future Directions

In sum, the current study represents a significant advancement in elucidating the complex relationship between prenatal stress and the development of food allergies in infants. However, further research in this area is paramount to validate and extend these findings. Such research would not only reinforce the existing body of knowledge. However, it could also crucially inform the creation of targeted interventions designed to alleviate the adverse effects of prenatal stress on infant health outcomes. The outcomes of this study pave the way for future investigations. It is essential to conduct additional research to establish the mechanisms and causal relationships that underlie the association between prenatal stress and food allergies. Longitudinal studies are needed to affirm the correlation between exposure to stress during pregnancy and the manifestation of food allergies in newborns. Future research could include statistical analysis to determine if the specific foods consumed by mothers under stress during pregnancy are the same as those to which infants show allergic reactions. That investigation could further explore whether the strength of this association is amplified if the mother continues to experience stress following childbirth. Future studies should also focus on assessing stress and cortisol levels during pregnancy in order to provide a more comprehensive understanding of the physiological impact of stress on both the mother and the developing fetus. In addition to relying on maternal reports, future research should incorporate medical evaluations of food allergies conducted by pediatricians or allergists to corroborate and validate the findings. Moreover, it is imperative to investigate other factors that may contribute to the development of food allergies in infancy. Such research would enable a broader understanding of the various elements at play, highlighting the distinct role of prenatal stress in this context.

The findings from this research provide pivotal insights crucial for directing future scholarly endeavors in prenatal stress and infant food allergies. This study underscores the need for a comprehensive, multifaceted approach to examining this relationship, necessitating the integration of psychological and physiological assessments. A deeper comprehension of these intricate dynamics is vital for developing more efficacious strategies to prevent and manage food allergies in infants, thereby enhancing health outcomes for this susceptible demographic. The data derived from this study hold significant potential for the formulation of targeted interventions designed to mitigate the detrimental impacts of prenatal stress on the development of food allergies in infants. These interventions could be structured from traditional medical practice to systematically desensitize infants to allergenic foods. This could be achieved by initially eliminating the triggering food stimulus entirely, followed by gradual reintroduction in progressively increasing, yet small, quantities. Crucial to this approach is the dissociation of the overcoupled stimuli. It is imperative to ensure a stress-free environment during these interventions, reassociating the previously stress-coupled food with positive experiences of pleasure and joy. To facilitate the establishment of new, positive associations with these foods, healthcare practitioners could offer guidance to caregivers on effective emotion regulation strategies and managing familial stress,

particularly during feeding interactions. Moreover, these interventions could be designed to foster increased synchrony and secure attachment between the parent and infant during feeding times. The overarching goal of these interventions should be to dissolve the existing overcoupling between the experience of stress and specific foods, aiming instead to foster an association of these foods with positive, pleasurable experiences.

Conclusion

In essence, applying the insights from this study holds significant promise in transforming clinical practice within pediatric allergy prevention and management. By embracing a holistic methodology that encompasses both physiological and psychological aspects of food allergies in prenatal stress, this research sets the stage for substantial improvements in infant health and wellbeing. Such advancements could lead to a more favorable start in life for this vulnerable population. Our study has successfully demonstrated a notable association between prenatal stress and the prevalence of food allergies in newborns during the initial six months of life. This finding enhances our existing understanding of the adverse consequences of prenatal stress. It contributes additional insights regarding the various types of stress implicated in developing food allergies in newborns. The significance of this study lies in its potential to inform the design of interventions aimed at reducing prenatal stress levels. Such interventions are essential for improving the overall pregnancy experience for mothers and optimizing newborn immune system function. Ultimately, the knowledge gained from this study represents a crucial step forward in our efforts to safeguard and promote the health of the youngest members of our society.

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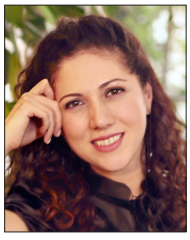

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Appendix A

Questionnaire Form Distributed to Parents

1. Infant age:
2. Did you give birth prematurely? If yes, at which month?
3. Did you experience difficulties during pregnancy? A. Yes B. No
4. Was there a period during pregnancy where you felt anxious/stressed for a month or longer?
   a. 1 (not at all) b. 2 c. 3 d. 4 e. 5 (all the time)
5. Did you have a cesarean birth? A. Yes B. No
6. Did your baby have allergies in the first trimester? A. Yes B. No C. Other

Appendix B

Table 1. *Detailed Explanation of Stress Type Categorizations*

Stress Type	Examples
Work-related stress	Mobbing, workload, long working hours, content-related
Physiological stress	Nausea and vomiting during pregnancy, narrowing of the feeding vessel, loss of vision, pregnancy cholestasis, physical fatigue, risk of fainting, gestational diabetes, constipation
Stress due to lack of a safe environment	Moving, fear of COVID-19
Stress due to grief	Loss of a family member
Stress due to lack of inclusive relationship	Loneliness, relationship problems, unsupportive spouse or family members, distance from social circle
Stress due to transgenerational trauma	Transmission of mother's experiences during pregnancy to newborn
Stress related to miscarriage risk	Fear of having a miscarriage
Stress about accepting the baby	Confused feelings in accepting the pregnancy and the baby, difficulty in accepting unhealthy baby, inability to accept the unplanned baby, difficulty in accepting the gender, not bonding with the baby during pregnancy
Stress about medication use	Use of medication other than supplements during pregnancy
Stress due to anxiety	Increased levels of anxiety
Stress due to use of toxic substances	Smoking during and before pregnancy

Utilizing Advanced Integrative Therapy to Treat Anxiety and PTSD in a Pregnant Woman

A Single Design Case Report

Elizabeth V. Pace, LPCS, M.Ed.

ABSTRACT

Many women experience pre-birth anxiety during pregnancy, especially during their first pregnancy because so much is unknown. This case study was conducted to explore the efficacy of Advanced Integrative Therapy (AIT), a somatic energy psychology (EP) trauma treatment modality, in reducing the anxiety symptoms of a woman carrying her first pregnancy. The author hypothesized that the client's symptoms of anxiety and her scores on multiple trauma assessment measures would be reduced after utilizing Advanced Integrative Therapy as the only treatment intervention. The study was conducted in the office of the author, who met with the client weekly for six sessions, each lasting 60 minutes. The client's self-report and subjective units of disturbance (SUDS), a basic anxiety scale (GAD-7), a dissociative experiences scale (DES-II), a posttraumatic stress checklist (PCL-5), and a complex posttraumatic stress checklist (ITQ) were completed pre- and post-treatment. The client met criteria for a probable diagnosis of post-traumatic stress disorder (PTSD) upon completion of the screening instruments. This was a single study case design utilizing AIT as the only treatment intervention, completed with a patient after she became pregnant with her first child. Data collection began when the patient was 18 weeks pregnant, in her second trimester. The study found that the client's anxiety and posttraumatic stress scores were significantly reduced and that her subjective units of disturbance (SUDS) were also reduced. When the screening instruments were re-administered at the end of treatment, the client no longer met the criteria for generalized anxiety or PTSD. Previous case studies have found AIT to be effective in desensitizing and reprocessing stored traumatic memories that lead to an overactive nervous system and symptoms of anxiety. More research on AIT's potential as a gentle treatment intervention for maternal mental health is needed.

Keywords: Advanced Integrative Therapy, AIT, pregnancy, anxiety, trauma

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An estimated 15.6% of women meet criteria for an anxiety disorder during pregnancy – making anxiety more common than depressive disorders in the perinatal period.

Research in medicine and psychology clearly indicates that maternal mental health is extremely important for the physical health and emotional well-being of mothers and their children (Shea et al., 2007). Pregnancy-related anxiety (PrA) "can be distinguished from general measures of anxiety in pregnancy in terms of longitudinal course, associated features, and prediction to postnatal mood disturbance, and may warrant specific clinical attention" (Blackmore, et al., 2017, p. 2). Pregnancy-related anxiety refers to "worry or distress particular to pregnancy, including the health of the developing child, changes in appearance, labor and birth, and future parenting concerns" (Blackmore et al., 2016, p. 251). High levels of PrA have been connected to shorter gestation, preterm birth, miscarriage, and hypertension in pregnant women (Tarafa et al., 2022). Furthermore, awareness of the negative effects of PrA can have a looping effect, provoking more anxiety for expecting mothers and causing feelings of guilt and self-blame (Yannati et al., 2020). An estimated 15.6% of women meet criteria for an anxiety disorder during pregnancy – making anxiety more common than depressive disorders in the perinatal period (Fairbrother et al., 2016). Many research studies have been conducted on the effectiveness of cognitive behavioral therapy for the reduction of PrA (Green et al., 2020), but there are significantly fewer studies conducted on the use of combined cognitive and somatic therapies, such as Advanced Integrative Therapy. To date, only six research studies about the effectiveness of Advanced Integrative Therapy have been published: a paper introducing AIT to the clinical community (then called Seemorg Matrix Work) by Dr. Asha Clinton (2006), two case studies (Pace, 2021, & Bird Weaver, 2021), an evaluation of therapists' experience of the effectiveness of AIT (Brown et al., 2022), a theory paper that included a section about AIT's effectiveness on treating trauma-related dissociation (Brown, Bird Weaver, & Pace, 2023), and a randomized controlled trial (RCT) comparing the effectiveness of Emotional Freedom Techniques and Quick AIT (Clinton, 2019) in desensitizing the subjective disturbance of emotions. The results of Dr. Brown's (2023) RCT show that Quick AIT (QAIT) is as effective as EFT in desensitizing the subjective units of disturbance (SUDS) in a memory from childhood. Of note, QAIT was found to desensitize the difficult emotions of participants in fewer rounds of the protocol than EFT (Brown et al., 2023).

A recently published RCT comparing Emotional Freedom Techniques and music therapy found that using gentle somatic energy therapies like EFT reduced self-reported symptoms of anxiety, encouraged posttraumatic growth, and lowered cortisol levels in pregnant women in Turkey who had experienced a pregnancy loss before their current pregnancy during the study (Okyay & Uçar, 2023). In psychology, research is increasingly focusing on intergenerational trauma and the transmission of adverse childhood experiences (ACEs) in the DNA of trauma survivors (Roy, 2019 & Abbott et al., 2022). Psychotherapists can intervene by applying evidence-based trauma treatments designed to interrupt the inheritance of epigenetic trauma (Moog, 2016). This case report also illustrates intergenerational patterns of trauma and how AIT helped alleviate symptoms of PTSD related to the client's chronically stressful childhood.

This report is unique in that the clinician utilized a novel somatic energy therapy to treat symptoms of PrA in a woman carrying her first pregnancy. Advanced Integrative Therapy posits that virtually all psychological issues, as well as many physical ones, have their roots in trauma (Freedom, 2022). The client reported a long history of chronic stress in her childhood, including being unstably-housed and transient with her mother, and being sexually abused by her mother's partner from ages two to 10. She reported feeling very anxious about making everything "perfect" for the baby she was bringing into the world in order to prevent the re-creation of some of her own ACES. The client met criteria for a probable diagnosis of posttraumatic stress disorder on the International Trauma Questionnaire (ITQ) and the PTSD Checklist for DSM-5 (PCL-5). The use of AIT with expecting mothers could interrupt the transmission of intergenerational trauma, thereby reducing or preventing ACES for the client's gestating fetus by increasing emotional regulation and resilience in the mother. A previous case report on Advanced Integrative Therapy also documented a significant reduction in the study subject's PCL-5, from meeting criteria for PTSD on their pretreatment screens, to not meeting criteria for PTSD on their post-treatment screens (Bird Weaver, 2021).

Patient Information, Primary Concerns and Symptoms

The client was a 33-year-old white European American woman who had never been pregnant at the time of intake. She reported she had been in a very supportive relationship with her partner for 1.5 years. In her intake paperwork, in response to the question of what brought her to counseling, she wrote that she was generally looking for new ways to respond to her problems. She also mentioned experiencing bouts of crying and feeling overwhelmed, and was uncertain as to why. The client reported her emotional symptoms upon intake as trouble concentrating, difficulty sleeping, low motivation, fatigue/low energy, tearful or crying spells, anxiety, fear, and panic.

She originally presented to the author's office on May 25, 2022, and reported that her presenting problem was experiencing challenges in her relationship with a business partner. She stated that she wanted to improve her ability to set boundaries, and to "people please" less. When asked to describe some of her symptoms further, she identified her symptoms of anxiety as: *"General anxiety. The funny thing is that I'm not anxious in times of crisis. I've always lived in crisis; the way I grew up and was raised, I'm very used to that kind of thing. I get more anxious when I'm not in crisis; when I don't have anything to deal with that is disastrous."*

As the client began to prepare for the birth of her child, she chose to cancel sessions with the therapist for financial reasons on August 31, 2022. The author contacted the client in early October 2022 to ask if she would be willing to participate in a case study for her presenting symptoms of PrA at a reduced session rate. The client happily agreed. The second episode of care began on October 12, 2022 and pre-treatment assessments were done at this time. The informed consent procedure for participating in a case study was also completed with the client in office.

Family and Biopsychosocial History

The client's biopsychosocial intake was reviewed in the office by the client and clinician on June 9, 2022. She reported that her family history had an impact on her gestation. Her maternal grandfather was verbally abusive to her mother and grandmother, and the client reported that he had *"anger problems."* The client also stated that her mother became pregnant with her when she was 15, that her grandfather's reaction to the news that his daughter was pregnant was not supportive, and that he rejected his daughter for becoming pregnant. The client was told by her mother that this pregnancy was the activating event that resulted in her grandparents' divorce because of her grandfather's extreme reaction to the news of her pregnancy.

The client reported that her mother and father were not together for very long. The client was the only child born from that partnership, although she had multiple half-siblings from her parents' subsequent relationships. The client noted that during her childhood, her mother *"struggled and often didn't have custody. She was very loving, but didn't 'get her act together' until I was in high school."* The client described her childhood as very transient, staying with her mother *"in a truck, [with] lots of interstate moves."* She lived with her mother when she was able to have custody, but also stayed with other family members when her mother was not stably housed. She reported living with her maternal grandmother in first and second grade, with her aunt in third grade, with her father for one year during fourth and fifth grade, and then with her mother from sixth grade onwards. She lived with both of her mother's parents at different times in her life, and said she was very close to both of them. She reported not knowing her father well, and that she spent only one year with him, between the ages of 10 and 11. In her intake, she described him as *"an angry alcoholic and a criminal."* During the year she lived with him, she said the household was very chaotic, and her father and stepmother would have physical altercations in the family home. She also noted that he was often gone during the year she stayed with him: *"Just me, raising myself."* The client had not spoken to her father for more than 13 years at the time of intake, and described that relationship as strained.

When asked to describe childhood traumas, upsets, and issues on the intake form, the client wrote that her chronic homelessness, unstable housing, and transience were major traumas from childhood. She also reported being sexually abused on multiple occasions by her mother's partner, with whom her mother stayed intermittently because he provided financial support. She reported the abuse happening when she was between the ages

of two to 10: *"When we [my mother and I] came to our hometown, we would stay with this man out of financial necessity."* The abuse stopped when her mother became more financially stable and was able to obtain more permanent housing for herself and her daughter.

The client had recently discovered that she was pregnant after only two psychotherapy sessions. She was in a long-term partnership with the baby's father, and reported that they both welcomed the pregnancy. The client stated that as a result of this pregnancy, her new goal for treatment was to *"be well equipped to raise my child in a healthy and nurturing household."* She added that she wanted to be able to ask for help, and was *"tired of being comfortable in chaos."* When she discovered she was pregnant, she stopped using alcohol and cannabis, and received psychoeducation about withdrawal syndrome after daily cannabis use. She reported having "weird" dreams in the initial weeks of abstinence, as well as feeling less rested after awakening, but reported no other symptoms of withdrawal.

The client said she had received mental health treatment several years earlier for anxiety and romantic relationship issues. She stated that she did not find it helpful. Her previous therapist was a "talk therapist," but she did not specify the type of treatment intervention used.

She was under the care of an obstetrician after discovering that she was pregnant, and she reported receiving routine testing, examinations, and medical care from this doctor. No physical examinations were performed in the author's office.

Timeline for Treatment

Table 1.

10/12/22	Session #1	Informed Consent, Pre-Test Assessments: DES-II, PCL-5, GAD-7	Client Took ITQ Home for completion
10/17/22	Session #2	Treating Psychological Reversals and deeply rooted core beliefs	
10/26/22	Session #3	Treating Deeply Rooted Core beliefs	
11/3/22		Appointment Cancelled	
11/9/23	Session #4	Completing the AIT "Alliance."	
11/18/22	Session #5	Begin AIT "5 Step Transformation" on Chronic Instability in Childhood.	
11/21/22	Session #6	AIT 5 Step on Chronic Instability Complete. Post-test assessments completed	

Diagnostic Assessment

The diagnostic methods utilized were the client's self-report and subjective units of disturbance (SUDS), a basic anxiety screening, a dissociative experiences scale, a posttraumatic stress assessment, and a complex posttraumatic stress assessment. All screening measures were completed pre- and post-treatment. Initial intake assessments were conducted during session one of treatment. The client scored a 19 on the Generalized Anxiety Disorder 7 Item (GAD-7). Any score over 15 is designated as severe anxiety (Saunders et al., 2023). The client's self-report on the optional impact of the functioning question was that these symptoms of anxiety made it *"somewhat difficult"* to

do work, take care of things at home, or get along with other people. The client completed a Dissociative Experiences Scale, 2nd Edition (DES-II), and scored 20.71. In average DES scores, a 5.4 is correlated with the general adult population, with a score of 7.0 being correlated with anxiety disorders. Average DES-II scores for people diagnosed with posttraumatic stress disorder are in a higher range, with mean scores of 31 and higher (Carlson & Putnam, 1993). Dissociation is characterized by the alteration of those functions that normally allow integration of the self, including identity, memory, consciousness, affectivity, perception, and cognition (Dell, 2006).

The client also completed two assessments to measure symptoms of posttraumatic stress: the Post Traumatic Stress Disorder Checklist (PCL-5) and the International Trauma Questionnaire (ITQ).

On the PCL-5, the client scored a 37. The cutoff score for PTSD is 31-33 (Weathers, 2013), which indicates a probable diagnosis of PTSD. The client also met criteria for a provisional diagnosis of PTSD on the ITQ, with a PTSD score of 17. On this instrument, a diagnosis of PTSD requires the endorsement of one of two symptoms from the symptom clusters of (1) re-experiencing in the here and now, (2) avoidance, and (3) sense of current threat, plus the endorsement of at least one indicator of functional impairment associated with these symptoms (Redican et al., 2021). Based upon the ITQ results, the client did not meet criteria for complex PTSD, but did meet criteria for PTSD. Upon compiling diagnostic assessments, clinician observation, intake interview, biopsychosocial history, and client self-report, the client was given a probable diagnosis of posttraumatic stress disorder.

On the date the assessments were completed (October 12, 2022), the client was also interviewed about her definition of her problems and symptoms. She stated that her primary symptom was *"stress related to control. I have a big problem when I can't 'fix something'"*. She further described her anxiety symptoms: *"I can't shut off. I have racing thoughts, frantically ruminating about issues."* She reported that her physical symptoms were exhaustion and poor sleep quality as a result of waking up in the middle of the night with racing thoughts and being unable to go back to sleep. In her own words, *"My initial reaction to stress is to overdo it physically. Once I complete the list of tasks, even menial tasks to distract myself, the end result is that I'm totally wiped out and exhausted."* She stated that the byproduct of this exhaustion was that she found herself *"crying out of nowhere,"* and having trouble breathing. She also reported that she suffered from headaches that arose from stress.

The client identified that her desired result from AIT treatment would be stability. When asked what kind of mother she wanted to be, the client replied: *"prepared."* She defined stability as being able to rest, get better sleep, and feel less tired throughout the day. By her definition, stability also meant feeling calm and self-assured, with a greater sense of safety in the world. She was also asked to give a scaling answer for symptoms that she wanted to decrease, and for positive outcomes that she wanted to increase.

Table 2.

Goals	Self-Reported Scaling 0-10 (10/12/22)	Self-Reported Scaling 0-10 (11/9/22)	Change in SUDS
Anxiety: "can't shut off, racing thoughts frantically ruminating about issues"	7/10	4/10	3
Rest, better sleep, less tired	1/10	6/10	5
Calm, self-assured	3/10	7/10	4
A sense of safety in the world	2/10	5/10	3

Diagnostic Challenges

The client reported daily cannabis use at the time of her initial intake (May 19, 2022), and stated that it was a way she managed her anxiety symptoms: *"I smoke weed regularly – every day, multiple times a day."* She also reported social alcohol use on weekends, but did not identify alcohol use as a concern or an issue. Upon discovering she was pregnant, she stopped using alcohol and cannabis. The detox syndrome from cannabis, as well as the eventual rebalancing of her neurochemicals eight to 10 weeks post-abstinence, may have had an impact on her mood and symptoms of anxiety, which may have led her anxiety to appear more prevalent upon administration of diagnostic assessments. The resolution of detox symptoms may have had an impact on the significant reduction of her symptoms of anxiety.

Prognostic Characteristics

One of the prognostic characteristics of this case was that the pregnancy was planned and welcomed by both the client and her partner, although she did report that she and her partner were planning to wait until their finances were more stable before starting a family. The prognostic characteristics for the case were the client's robust physical health, as she reported that health and fitness were very important to her, her self-reported very secure and supportive relationship with her partner, and her partner's extended family. The client also was self-referred to therapy, and asked to utilize somatic interventions at the recommendation of a friend. She was thereby very receptive to treatment. Her pregnancy was uncomplicated, and the absence of any additional health concerns allowed her to focus on treating her mental health issues. She was also able to stop using cannabis and alcohol voluntarily when she discovered that she was pregnant.

Therapeutic Intervention

Advanced Integrative Therapy was utilized, with two treatment protocols used. Advanced Integrative Therapy is defined by Dr. Asha Clinton as "a new transpersonal energy psychotherapy that supports and generates healing, development, and illumination by gently removing traumatic symptoms and replacing them with positive beliefs and qualities, spaciousness, and a strengthening connection between ego and center" in her seminal paper on this treatment modality (Clinton, 2006, p. 95). In a more recently published theory paper designed to introduce AIT to researchers and interested clinicians, AIT was defined as "a novel therapy grounded in Energy Psychology combined with cognitive and somatic techniques" (Brown et al., 2023, p. 31).

Advanced Integrative Therapy is unique in that it utilizes kinesiology-style manual muscle testing (kMMT) as a supplementary tool to identify and triage treatment order in therapy sessions, as well as to confirm that the subjective units of disturbance (SUDS) of a treatment phrase are decreasing or have been extinguished. "Kinesiology-style manual muscle testing (kMMT) is a non-invasive assessment method used by various types of practitioners to detect a wide range of target conditions (Jensen, 2014, p. ii)". KMMT is used to assess muscle strength and weakness in chiropractic and physical therapy settings. In AIT practice and psychotherapy, kMMT is utilized as a cue to confirm the need to treat unconscious or dissociated material. Dissociated experiences and "forgotten traumas" (Clinton, 2019) can be difficult to access and may make traditional "talk therapy" challenging for clients with ACES that resulted in trauma-related dissociation or trauma splitting (Fischer & Ayoub, 1994). A clinical research study of 89 healthy college students used a computerized dynamometer to test their deltoid strength after making congruent and incongruent statements. The study showed that after congruent statements were made, muscles were able to resist significantly more force compared to after making incongruent statements. For the purposes of the study, a congruent statement was defined as one the speaker believes to be true, whether or not their belief reflects actual reality. It was found that congruent statements usually result in strong MMTs, while incongruent statements usually result in weak MMTs (Monti et al., 1999).

AIT Therapists utilize kMMT to confirm clients' psychological readiness to treat traumas, described in the AIT Basics Manual as their ego strength (Clinton, 2010). AIT therapists and their clients construct treatment phrases, and then test the strength of their muscles in response to the client repeating that statement aloud. If the muscles (usually in the arm) that are being tested remain

strong, then that would be a confirmation indicating a "true" statement. An example in this case report involved creating the treatment phrase, "I give permission for my being to be healed," and then using kMMT to confirm whether the client's arm muscles remained strong when she repeated this phrase. If this statement tests "strong" using kMMT, indicating muscle strength after repetition, the client is ready to progress to psychotherapeutic depth work. This suggests she is giving both conscious and somatic (or unconscious) permission to release stored traumas.

Manual muscle testing has a growing basis in clinical research, and is statistically better than chance or intuition, which would be correct 50% of the time (Jensen 2014). KMMT is currently contested in the research community as to its "legitimacy" as a diagnostic tool, but this is beyond the scope addressed by this paper. In AIT practice, kMMT is used as a confirmation and a cue of the client's somatic or embodied readiness to proceed with treatment. As a consideration, good therapy strives to "meet the client where they are," and those clients who respond favorably to kMMT in the clinician's practice describe it as a helpful tool to establish a deeper relationship with themselves and their unconscious processes, as well as to diminish their reliance on overly intellectualizing their therapy or treatment, which is a common barrier to successful resolution of trauma-related dissociation.

The Core Belief Protocol of AIT includes initially identifying a phrase that will require treatment. If this is a maladaptive core belief, the client identifies how true or strong it feels to them, utilizing a 0 to 10 scale with 10 being "completely true" or "distressing and strong." AIT clinicians utilize the Subjective Units of Disturbance (SUDS) scale to document either the sensation of veracity or the disturbance caused by the statement (Tanner, 2012). As an example, when a treatment phrase is identified, such as "I'm not worth being protected or comforted," the client would identify that it feels "like a 7" to them on the 0 to 10 scale. The treatment intervention begins with the client identifying where they feel the sensation in their body when they hear this phrase. They place a stationary hand at the sensation location for the duration of a "round" of AIT. For clients who struggle with bodily awareness or experiencing somatic sensations, kinesiology-style manual muscle testing (kMMT) can be used to identify where they will place their

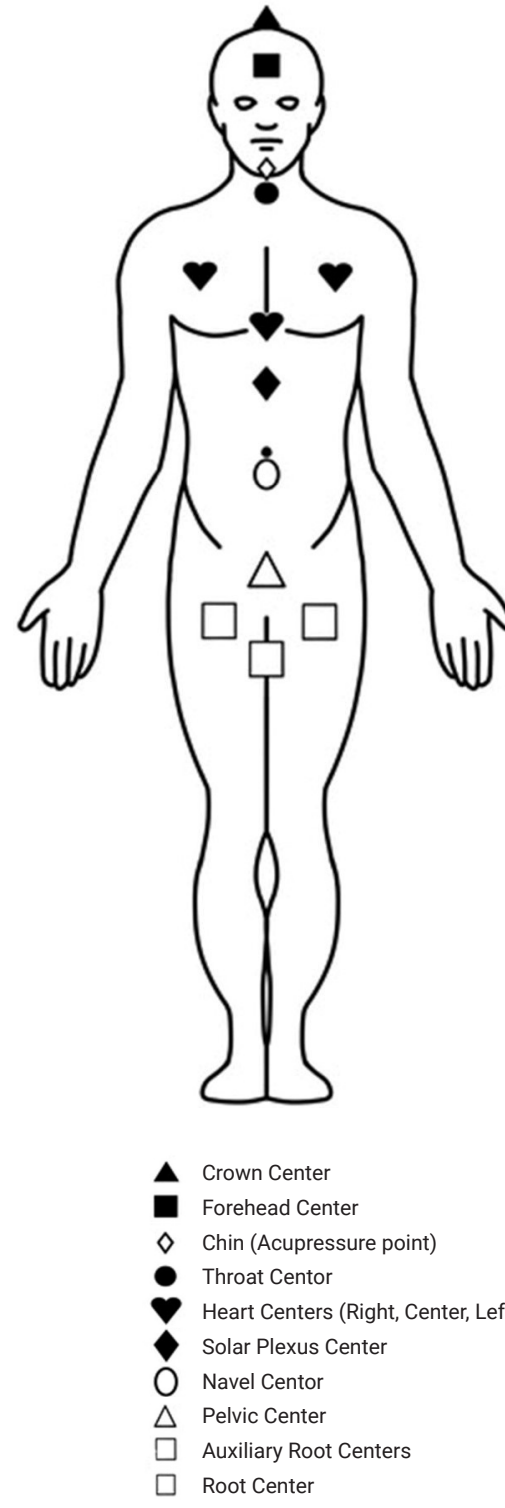

Figure 1. *Energy centers in AIT.*
Illustration: Paul Weaver, 2021. Image: Brown et al., 2023

stationary hand. After the sensation location of sensation is identified, the client places their "movement hand" at the crown of their head and states the identified phrase, such as "I'm not worth being comforted or protected." The client next moves their hand to their forehead, and repeats the phrase. The order of hand placement for a round of AIT goes as follows: crown, forehead, chin, throat, center of chest, left chest, right chest, solar plexus, belly button, pelvis, left hip crease, right hip crease, and root (base of tailbone). After a round of AIT, defined as moving one hand through each energy center and repeating the phrase, the client identifies whether the SUDS score has gone down. This is repeated until the SUDS score is extinguished to zero. At that point, the client then instills a positive cognition to replace the deeply rooted maladaptive core belief. The opposite of the negative cognition above is "I am worth being protected and comforted." The client again identifies how strong the statement feels on a 0 to 10 scale, with the intention of strengthening this positive cognition to a 10 on the scale. To instill positive cognitions, the client again identifies the location where they feel the sensation, and then begins their movement hand at the root, going up to the pelvis (skipping the hip creases), belly button, solar plexus, center chest, left chest, right chest, throat, chin, forehead, and finally the crown (see figure 1, Brown et al., 2023). At each energy center, the client repeats the phrase: "I'm worth being protected and comforted." The instillation of the positive cognition is complete when the score reaches 10.

The first protocol is an AIT Basics protocol titled the "Alliance Agreement." It uses the AIT Core Belief protocol to extinguish deeply held core beliefs. It is the stance of AIT practitioners that these 24 core beliefs can be such impediments to successful treatment outcomes that they must be desensitized and reprocessed before starting deeper trauma treatment work. This is also an opportunity for psychoeducation, practicing distress tolerance, helping to familiarize the client with AIT protocols, and countering sabotaging or blocking core beliefs with more adaptive thinking and processing. The Alliance treatment phrases that were identified as blocking beliefs for this client were: "I'm not in touch with my deepest, wisest self," "I'll be deprived if I'm healed," "I can't bear or survive all my feelings," "People tease me," and "I want to die."

The blocking belief that required the most treatment and the most rounds of AIT Core Belief protocol to desensitize was "I can't bear or survive all my feelings." When desensitizing this belief, the client shared that her mother disclosed that she had also been sexually abused as a child. The client recalled her mother telling her that when she told her own mother (the client's grandmother), the grandmother had stated, "Well, it happened to all of us" in a helpless and dismissive way. The client reported that when she disclosed her experiences of sexual abuse to her mother in high school, her mother had responded by saying, "What do you want us to do?" The client clarified that she felt her mother meant this in a supportive way, but the subtext of her response seemed to be that the client was responsible for making a choice, or deciding what happened next. No child services report was made at the time. The client stated that her mother did a better job of responding than her grandmother had done, but that it was still insufficient. The client made the connection that she suppressed the unbearable feelings associated with her chronic sexual abuse traumas because she felt her mother was not capable of helping her work through those feelings at the time. Processing core beliefs using AIT can be analogously compared to finding and opening a time capsule of thoughts, memories, emotions, and sensations stored in the body at the time of the trauma. Simply repeating the statement, "I can't bear or survive all my feelings" with hands placed at each center allowed the client to access unconscious or forgotten memories, as well as make the connection between her emotional suppression and her family's ancestral or legacy trauma. Additionally, the core belief, "It's dangerous to express my feelings" was desensitized and reprocessed.

The next step of the Alliance protocol is to align the client's biopsychosocial spiritual systems to make an agreement between the conscious and unconscious self. The beliefs that required extinguishing were: "My unconscious mind will not allow me to use Advanced Integrative Therapy (AIT) to heal all the wounds I choose to heal in my spirit," and "My unconscious mind will not allow me to use AIT to heal all the wounds I choose to heal in my conscious mind." After extinguishing the charge or SUDS score on these two phrases, the agreement was completed after the client repeated the following phrase: "With every trauma or traumatic pattern

I treat, I will not only eliminate all the traumatic reactions, but also everything that would make me keep them, ever take them back again, allow them to come back, be receptive to their coming back, or ever permit them to return. My unconscious will do that for me every time." In the flow of treatment, completing the Alliance agreement prior to depth AIT is defined as a necessity for thorough and lasting treatment (Clinton, 2019). Treating blocking beliefs first is therapeutic as a stand-alone intervention, but it also serves to help acclimate the client to AIT protocols, to become conscious of their resistance, and to build ego strength or distress tolerance for treating deeper issues.

After completing the Alliance agreement, the next protocol utilized was the AIT 5-Step Transformation, which can be found in the Advanced Integrative Therapy Attachment Theory and Treatment Manual (Clinton, 2019). The rationale for the change from the Standard AIT 3-Step Transformation was that the AIT 5-Step Transformation was suited to treat the chronic patterns of stress and instability in the client's childhood. The standard AIT 3-Step Transformation from AIT basic training identifies the Initiating Trauma (IT) statement that is causing the symptoms, disturbance, or distress in the present day, the Originating Trauma (OT) statement, which identifies the experience at the root of the present-day disturbance, and a Connecting Trauma (CT) statement, which brings the connection between these events into the conscious mind. For example, if the IT statement is "When I don't have anything to do I feel anxious," and the OT statement is "When I was a child my life was constantly chaotic and unstable," then the CT statement would be the combination of the two: "Because my childhood was constantly chaotic and unstable, today I feel anxious when I don't have anything to do."

To begin a round of treatment, the client identifies the SUDS on a scale of 0 to 10 for the statement being treated first, which is the OT statement. The client will also identify the area of the body where they are experiencing somatic sensations, or the location of that distress. With their hand on the identified area of the body, the client will then move their other hand through the hand placement centers on the body, starting at the crown, while repeating aloud the identified statement. For example, "When I was a child my life was constantly chaotic and unstable." The client repeats the phrase at each center as the clinician mirrors the client's movements. The energy centers for hand placement are the same as the Core Belief protocol (Figure 1). After a round of desensitization and reprocessing using the AIT 3-step protocol, the clinician assesses if the client's SUDS score has decreased, using client self-report or kMMT. The Originating Trauma (OT) statement will be processed using the AIT protocol until the SUDS score is zero. After the OT is treated, the Initiating Trauma (IT) is treated with the same protocol. When the Initiating Trauma statement, e.g., "When I don't have anything to do I feel anxious," has been desensitized to a zero SUDS score, the Connecting Trauma (CT) statement is created and then treated using the same protocol. For example: "Because my childhood was constantly chaotic and unstable, today I feel anxious when I don't have anything to do." When the CT has also reached a zero SUDS score, the AIT 3-step transformation is said to be completed.

The AIT 5-step transformation is more thorough and appropriate for attachment and complex traumas because it includes 1) the traumatic event, 2) the client's reactions to this trauma (how they coped), 3) the dissociated emotions as a result of this trauma, 4) somatized emotions stored in the body as a result of this trauma, and 5) the connecting trauma statements, or how this is impacting their present-day life, symptomatology, and functioning (Clinton, 2014). The same process of creating a treatment phrase, identifying a SUDS score, hand placement, and the repetition of the phrase at each energy center is applied for the AIT 5-step transformation. The client's 5-step transformation phrases were constructed as follows:

Table 3. *Advanced Integrative Therapy Five Step Transformation for the theme of Chronic Instability*

STEP	Treatment Phrase
1. Originating Trauma	*All the times and ways my family was chaotic, unsettled or not comfortable when I was a child (treating the pattern).*
2. Originating Trauma Reactions	*Because my family life was chaotic and unstable, I reacted by always having to do something to make it work, masking my feelings, and feeling like I'm in control.*
Emotional Aspects	*All my feelings of independence, anxiety, perfectionism, 'can't relax,' and frustration because I got accustomed to managing tasks and trying to create stability in my family.*
3. Dissociated Emotions	*All my dissociated emotions of fear, loneliness, confusion, seeking safety, anger, frustration, and abandonment because my family life was chaotic and unstable.*
4. Somatized Emotions	*All my somatized emotions of anxiety, exhaustion, dissociation, overdoing it, isolation, independence & pride, restlessness, avoiding feeling out of control, resentment, short tempered, explosive anger that have settled in my body as adrenaline spikes, elevated cortisol, insomnia, exhaustion, crying, GI issues, lower back pain.*
5. Connecting Trauma Statements	*Because my family life was chaotic and unstable, and my emotions were neglected, today I'm anxious about having a baby because I want everything to be perfect, stable, and I WON'T NEGLECT ANYTHING!*
	Because my childhood was chaotic and unstable, I'm unconsciously trying to heal that wound by making everything perfect for my baby.

Utilizing the AIT 5-step transformation took place over the last two sessions. After each round, the client was able to describe the sensations, emotions, thoughts, memories, or new awareness that arose as a result of repeating the treatment phrase at each energy center. The client was able to desensitize and reprocess the trapped emotions and sensations that were stored in her body and not released because her life was not stable at the time of their origin. Most notably, the client was able to identify that her expectations of herself in creating a perfect family were not reasonable or possible for her to do, and that the behavioral manifestations of these expectations were more costly than they were beneficial.

Follow-Up and Outcomes

At the final session, post-test measures were taken, and the reduction in self-reported symptoms on the Post Traumatic Stress Disorder Checklist (PCL-5) was considered to be clinically meaningful. At her initial screening, the client scored 37 on the PCL-5. Five sessions after the initial assessment, the client's PCL-5 score was 4, and she did not meet criteria for a diagnosis of probable PTSD as defined by this assessment. The PCL-5 was found by Roberts et al. (2021) to be psychometrically sound. It can be used to assess symptoms of post-traumatic stress and provide a provisional diagnosis of PTSD with a cut-point score of 31-33. A total score of 31-33 or higher suggests that a patient may benefit from PTSD treatment. Evidence for the PCL-5 for DSM-IV suggests that a minimum threshold of 5 points indicates a treatment response, while a 10-point change is needed for clinically meaningful improvement (Weathers et al., 2013). Marx et al. (2022) found the reliable change index (RCI) for the PCL-5 was ≥ 15 and ≥ 18 in two samples in a population of combat veterans. Thereby the change of 33 points on the PCL-5 from 37 to 4 could be interpreted as clinically meaningful.

The International Trauma Questionnaire (ITQ) was also utilized to screen the client for a probable diagnosis of PTSD or complex PTSD (CPTSD). The client scored 17 on the PTSD scale, and met criteria for a probable diagnosis of PTSD. The client did not meet screening criteria for CPTSD. "The ITQ was developed to be consistent with the organizing principles of the ICD-11, as set forth by the World Health Organization, which are to maximize clinical utility and ensure international applicability through a focus on the core symptoms of a given disorder" (Cloitre et al., 2018, p. 1). The ITQ was found to be responsive to change, and appropriate as an evaluative measure (Cloitre et al., 2021). In a study of 254 United States veterans, the ITQ captured reliable and clinically significant change during treatment. For the PTSD symptom cluster of the ITQ, Cloitre et al. (2021) calculated the reliable change index (RCI) to be 3.79. The client's change in PTSD score of 16 points, from 17 on her pre-treatment ITQ to 1 on her post-treatment assessment, would appear to be clinically significant. The client's total score for the PTSD criteria on the ITQ post-treatment was 1, and she no longer met criteria for a probable PTSD diagnosis based on this assessment.

At the post-treatment follow-up screening, the client scored 3 on the GAD-7. When asked what impact these symptoms of anxiety had on her ability to function, the client reported, "Not at all." GAD-7 scores between 0 and 4 are described as "minimal anxiety." In multiple studies, the GAD-7 has shown good psychometric properties (Kroenke et al., 2010; Lowe et al., 2008). Bischoff et al. (2020) established an RCI of 6 for the GAD-7 in both clinical and non-clinical populations, and found that the GAD-7 had good test-retest reliability. The client's reduction of 16 points from a score of 19 on the pre-treatment GAD-7 to 3 on her post-treatment GAD-7 screening is likely to be a reliable change as a result of treatment.

The Dissociative Experiences Scale (2nd ed.) (DES-II) can be used to track progress over time in treatment (Buchanan, 2023). A further review of the psychometric properties of the DES-II finds that while "the DES seems to measure the current view on past dissociative experiences," (van IJzendoorn & Schuengel, 1996, p. 365), it may not be a reliable indicator of clinically significant change as a result of treatment (Trujillo et al., 2022). The client was originally given the DES-II to screen

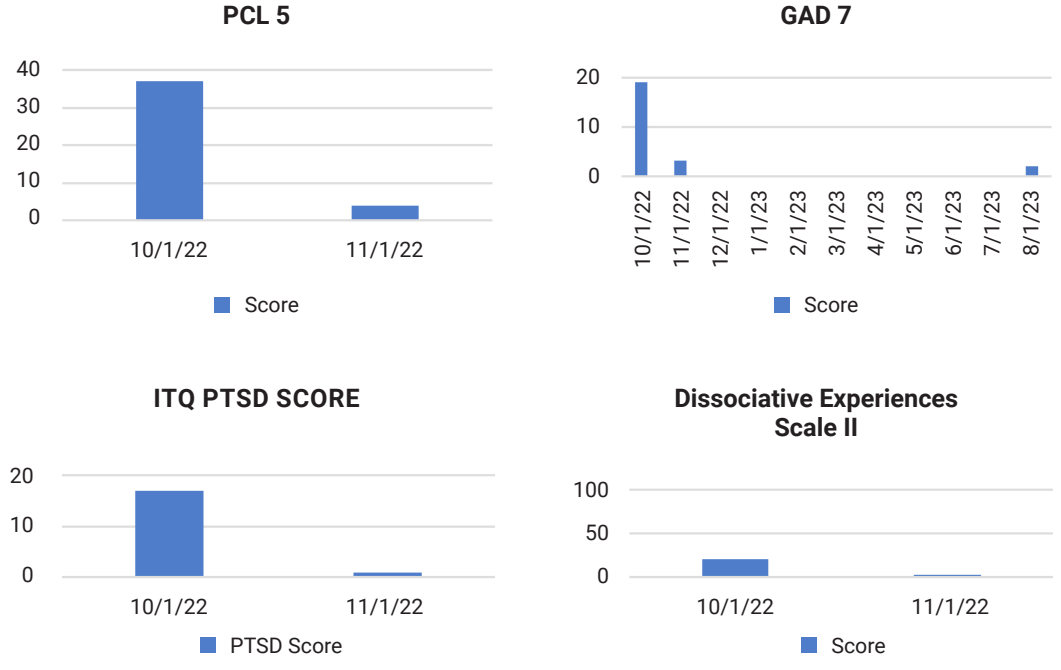

Figure 2.

for symptoms of trauma-related dissociation that might require additional treatment or make her a poor candidate for a case study. Her pre-test score was 20.71, and after six sessions of AIT treatment, she scored 10.71. The client's outcome on the post-assessment DES-II is noteworthy, but may not indicate clinically meaningful change.

The client consented to participate in a nine-month follow-up interview (8/23/23) with the clinician. She gave birth to her baby with no complications, and reported to the clinician that she was coping well with motherhood, and that reducing her pregnancy-related anxiety during treatment had generalized into being better able to manage her anxiety while parenting her newborn daughter. At the time of the follow-up interview, the GAD-7 was administered again, and the client's GAD-7 score was 2, with the client reporting that these anxiety symptoms made it "somewhat difficult" to do work, take care of things at home, or get along with other people. Scores of 0 to 4 on the GAD-7 indicate minimal anxiety, which is stable with her post-treatment score on the GAD-7, which was 3.

Utilizing SUDS scores is an ongoing cornerstone of AIT treatment that enables the clinician to assess the client's tolerance to interventions throughout the sessions. A midpoint check-in was also completed on 11/9/22 to assess if the client was experiencing any positive effects from treatment (see Table 3), and assessed whether treatment was having an impact on the client's identified goals. From her self-report and SUDS scale, the client identified that Advanced Integrative Therapy was helping her reach her treatment goals (see Table 3).

Discussion

One of the strengths of this case was the thoroughness of the documentation pre- and post-intervention. Utilizing one intervention increased the clinician's ability to posit that Advanced Integrative Therapy had contributed to such a stark decrease in scores on her PTSD and anxiety screens. Conducting a nine-month follow-up assessment also adds validity to the claims of AIT's creator that it is "thorough and lasting" (Clinton, 2006). Another strength of the case is that the clinician utilizing Advanced Integrative Therapy has taken multiple advanced AIT trainings, and this skillset may have had an impact on the significant reduction of anxiety and PTSD symptoms. However, this may make such a study difficult to replicate on a larger scale. A final strength of this case is that AIT relies on manualized protocols, and is therefore easy to follow for novice and less experienced clinicians.

One of the limitations of the case is that although sessions were offered to the client at a reduced cost, she was paying privately for therapy with the clinician/researcher, and this may have given rise to social desirability issues, or to the client over-reporting positive changes, and under-reporting negative outcomes due to receiving treatment at a reduced cost (Nederhof, 1985). Another limitation of the case is that the client was previously engaged in psychotherapy with the clinician, and had already been using AIT in psychotherapy. Therefore, she had already "bought in" to the treatment modality. The client was self-referred to treatment, and had specifically requested to receive Advanced Integrative Therapy upon the recommendation of a friend. She then may have had some bias and expectation that the intervention would be successful, which could cause a placebo effect of expected outcomes for Advanced Integrative Therapy (Enck & Zipfel, 2019). Another potential limitation in the case is that the client was also going through physiological changes as a result of her cessation of cannabis use, which may have had an impact on higher scores on her pre-test evaluations. The early symptomatology of cannabis detox had likely resolved by the time that the client took her pre-test measures, but no assessments were taken of THC levels in her body at the time of the evaluation (Bonnet et al., 2015). At the final appointment, the client had been abstinent from cannabis for 20 weeks. An additional limit of this case study is that it used client self-report assessments rather than biometric measures such as cortisol levels or heart rate variability (HRV).

Medical Literature Review

Currently, the body of literature in which to compare this study is quite small. There is a larger body of literature on the effectiveness of Emotional Freedom Technique (EFT) and Eye Movement Desensitization and Reprocessing (EMDR) on pregnancy-related anxiety (Baas, 2022; Irmak, Vural, & Aslan, 2019). Advanced Integrative Therapy has been compared to these interventions in both proposed mechanisms of action for its effectiveness,

and treatment outcomes for clients (Brown et al., 2023). This is the first case study to document the effectiveness of AIT on PrA, and there is a need for similar studies to be replicated in larger clinical and medical settings. The reduction in the client's scores on her post-treatment anxiety, dissociation, and posttraumatic stress disorder screening measures is significant enough to warrant further research into the viability of Advanced Integrative Therapy as a treatment for pregnancy-related anxiety. Emotional Freedom Technique (EFT) has been shown to be effective in reducing cortisol levels in pregnant women in multiple studies (Mardjan et al., 2018; Okyay et al., 2023), and EFT can be described as a body-based, somatic intervention. Cognitive Behavioral Therapy (CBT) also has a large body of research documenting its effectiveness in treating pregnancy-related anxiety (Donnegan, 2022, & Green, 2020). Advanced Integrative Therapy utilizes the depth framework of Jungian psychoanalysis and transpersonal psychology (Clinton, 2006), the desensitization of negative core beliefs as in CBT (Clinton, 2014), and a body-based, somatic component as with Somatic Experiencing, EMDR, and Emotional Freedom Techniques (Brown et al., 2023). AIT is better described as a psychological framework than simply a treatment intervention tool (Brown et al., 2023; Clinton, 2019). Therefore, it can be posited that AIT can provide the "best of all worlds" as a combined cognitive and somatic therapy that can reach profound psychological depth in a short amount of time. If the significant reduction of symptoms of PTSD and anxiety for the client in this case study is any indication, there is great promise in AIT's capacity to reduce the consequences of stored trauma in the body and break the cycles of intergenerational trauma.

Key Takeaways of the Case Report

The most relevant takeaway from this case report is the speed with which Advanced Integrative Therapy worked to significantly reduce the client's symptoms of anxiety and posttraumatic stress disorder. AIT's thoroughness is evidenced by the order of treatment: 1) extinguishing blocking beliefs, which also acts as preparation for depth treatment; and 2) treating not only the events of the originating traumas, but also the traumatic lessons learned and the client's reactions, the dissociated emotions trapped in the client's psyche (also described as trauma splitting), and the somatized emotions that were stored in the body as physical manifestations of her symptoms. The nine-month post-treatment follow-up indicates that AIT worked to extinguish the symptoms, and they did not return. From the discussion of the relevant literature, it is evident that there is a need for further quantitative research into AIT's effectiveness that includes biometric measures.

At the time of this writing, one RCT to compare AIT and Emotional Freedom Technique had been recently published (Brown et al., 2023), and plans are underway for another RCT to compare AIT with CBT. This paper aims to garner interest from researchers in conducting more clinical research on the effectiveness of Advanced Integrative Therapy.

Patient Perspective

In the post-treatment interview, the client was asked to share her perspective on treatment (11/21/22). When asked about her symptom reduction, she stated:

> "Aside from just recognizing when my reactions are related to my past traumas, I'm able to take myself away from them a little bit more, to be more rational in my responses to things. Previously I didn't… Now I can think, "What are the root causes of this? What are the things I can say to [myself] to be realistic and tangible?" Being easier on myself and cutting myself some slack. I'm a big avoider, so having to make these [AIT] statements and participating in AIT makes me give attention to these statements. My M.O. is to cover up, bottle up. Before it was replacement therapy, as in "How can I make myself feel better by being successful at something when I feel bad?" I am able to be more open with my partner because I'm more aware of things, and it's really helped our communication, and why I do the things I do. I definitely feel a lot less physically triggered. I have less of the physical symptoms. I haven't been crying as much this month, which is big for me. Before I was crying at least once a week, and I didn't know why. Over the last month, I cried once, and I knew exactly what it was about, and I addressed it." The client shared that she noticed that her dissociative symptoms were also reduced, saying "I'd make a plan to do something, and I'd forget I'd already done it. I don't know if I'm not forgetting as much, or if

> it's actually that I don't feel this frantic effort, or dwelling on something that isn't necessary."

At the nine-month follow-up interview, the client stated:

> "My ability to not be freaked out 24/7 about everything, or be in a state of anxiety about stuff, has been really great. That's not to say that things haven't been very challenging, but I'm like, "Oh I can handle it much better now." (Client's infant was seven months old at the time of the nine-month follow-up interview.)

> "I think it [AIT] created an awareness...between what was going on in my mind and my body...I became aware of the connection between those two things, and that helped bring myself down. Because even now I have these brief moments where I'll get super anxious, or hyper-fixated on something, and start to feel a panic coming on, and I'm just able to walk myself out of that. I wasn't really aware of how bad the manifestations of my PTSD and my anxiety were affecting me on a day-to-day basis until I had it stop affecting me on a day-to-day basis."

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The Therapist's Role in the Developmentally Sensitive Reparative Process

Providing a Corrective Emotional Experience

Elya Steinberg

ABSTRACT

From a theoretical and clinical perspective, developmentally needed, reparative therapeutic relationships have deep roots in psychoanalysis and other psychotherapeutic modalities, including biodynamic body psychotherapy (BP). This paper explores BP's approach to regression as it supports the client's continued salutogenic development – the processes of moving toward health – and the realization of their inherent potential. By integrating unique clinical tools and techniques, BP fosters psychological and physiological corrective emotional experiences that reestablish authentic affective states as allostatic phenomena – the synchronized capacity of all systems to achieve dynamic stability amid change. This paper illustrates practical ways in which biodynamic psychotherapists become a "good enough" presence in the Winnicottian sense, while also considering the impact of regression in reestablishing biopsychosocial functions. These include aspects of neuroscience and psychoanalysis, such as conscious and unconscious integrative processes, organic changes in perception, and the emergence and reconsolidation of memories.

Keywords: regression, emotion, implicit memory, neuroscience, psychotherapy, reconsolidation of memory, vegetotherapy, biodynamic, salutogenesis, allostasis

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> ***Winnicott's perspective that "there is no mother without a baby" applies here. The client constructs the therapist, much like infants fabricate the breast through their capacity for love or need.***

Biodynamic psychotherapy (BP), developed by Gerda Boyesen in the 1960s, is a holistic approach that supports salutogenesis (Antonovsky, 1979, 1987; Mittelmark et al., 2017) through body awareness, emotional expression, and attuned touch (Steinberg, 2024). Rooted in the human potential movement (Douglas, 2010), BP aims to unlock the "primary personality" (Boyesen, G., 1972, 1982), a construct similar to Feldenkrais's *potent self* (1985), Horney's *real self* (1951), Winnicott's *true self* (1960), and Schwartz's *self* (1995, 1997). BP utilizes a comprehensive assessment framework that integrates medicine, neuroscience, neuropsychoanalysis, trauma work, and developmental psychology to facilitate natural health processes (Steinberg, 2010) and foster personal growth.

Basic Principles of Biodynamic Psychotherapy

Biodynamic psychotherapy (BP) promotes salutogenic change by harnessing the organism's ability for emotional and physiological regulation. It addresses unconscious conflicts, defensive processes, and maladaptive patterns. By identifying and processing dysfunctional relationships within the therapeutic context, BP seeks to enhance natural growth and reawaken health potential.

BP methods are guided by organic *transference* (Stattman, 1968), and facilitated by *biodynamic typology*, which is defined by energetic permeability (Boyesen, G., 1986 [2022a]; Speyer, 1977; Tanguay, 2022a; van Heel & van Eeghen, 2022) between therapist and client.

- *Organic transference* is a somatic identity formation process involving unconscious mirroring of parental bodily rhythms and emotional complexes from pre-birth through early childhood (Stattman, 1968).
- *Biodynamic typology* (Tanguay, 2022a) describes an individual's permeability to their primary personality. It illustrates stages of self-actualization, ranging from neurotic to less neurotic types. Permeability denotes the flow of primary personality energy through bodily and psychic layers.

The concept integrates affective permeability, defined as the "shared experience of intense affect across permeable boundaries" (Mitchell, 2000, p. 58), interoceptive awareness, or the conscious perception of internal bodily sensations, and alexithymia, which refers to the difficulty in identifying and describing emotions and is often linked to childhood adversity (Lloyd et al., 2021).

This comprehensive approach enables BP to address the whole person, promoting growth and healing through a profound understanding of the interconnectedness of body, mind, and emotions.

Three Core Methods

Biodynamic psychotherapy (BP) employs three core methods: BP touch/biodynamic massage (Southwell, 1982; Eiden, 1995; McCallion & McCallion, 2000; Steinberg, 2016, 2024; Westland, 2022), biodynamic vegetotherapy (Southwell, 2022a), and rooted talking (Southwell, 2010).

These methods correspond with Panksepp's concept of nested brain-mind hierarchies (Panksepp et al., 2014; Panksepp, 2015), activating intrinsic brain emotional systems (primary processes) as bottom-up events. This leads to new learning (secondary processes) and ultimately affects thinking (tertiary processes).

BP work balances biological and psychic processes, emphasizing attuned interventions and monitoring integrative processes without a pre-planned agenda. The principle that "the client cannot fail the method, but the method may fail the client" (Boyesen, G., 1985 [2022]; Leudesdorff & Santner, 1995) underscores the importance of flexibility in the therapeutic approach.

1 Biodynamic Psychotherapeutic Touch

Biodynamic psychotherapeutic touch, or biodynamic massage (Steinberg, 2016, 2024), is an attuned haptic form of nonverbal communication initiated by the biodynamic psychotherapist. It relates to and is guided by unconscious conflicts and the natural growth potential that emerges in the client's verbal and nonverbal communication during the psychotherapeutic encounter. The psychotherapist is regarded as the midwife of the client's process, not its cause.

Biodynamic psychotherapeutic touch integrates 18 different techniques guided by biofeedback from the digestive system, known as psycho-peristalsis (Boyesen, M.-L., 1974a, 1974b, 1975a, 1975b, 1976a, 1976b, 1976c), non-invasive vagal stimulation (Steinberg, 2016), and the autonomic nervous system (ANS). However, the "magic" – the effectiveness of the touch – doesn't depend on the specific touch technique but rather on the therapist's level of attunement during the touch – i.e., attuned touch. The touch must be attuned biologically and psychologically (Steinberg, 2024).

2 Biodynamic Vegetotherapy

Biodynamic vegetotherapy is defined as an embodied free association process that allows the embodied infinite possibilities of human subjective experience, unconscious needs, unfinished business, repetitions, and desires to spontaneously emerge from within the client as

an organism due to "internal organismic pressure" (Southwell, 1979), which unconsciously "knows" which processes will lead to a healthier state as an individual-subjective whole.

3 Rooted Talking

Rooted talking is a verbal process where the client, as an active participant, connects deeper into themselves, their sensations, and the feelings in their body. The psychotherapist metaphorically positions themselves alongside the client, supporting the process of rooting verbal expression in bodily sensations of the self through "stepping stones." They support communication with "it" (Southwell, 2022b), the unconscious and the unaware, through non-provocative communication that encourages the continuation of the sentence without using "wh" questions (i.e., who, what, where, when, why).

Understandably, Gerda Boyesen highlighted two qualities required of the therapist:

a. The therapeutic presence (Boyesen, G., 1985 [2022]). The therapist is connected to their well-being and their own streaming. The therapist can emotionally and physiologically self-regulate. The therapist's state of being gives the client with the space and time to reach the deep, essential levels from which the "stimuli from within" can impinge.

b. The essential executive function of flexibility that the attuned psychotherapist must exhibit in response to the client's changing needs.

The psychotherapist must be fully attuned to the client's rhythm, including the crescendos and decrescendos of their emotions and sensations. Attunement, resonance (Boadella, 1981), and organic transference (Stattman, 1968) are significant tools that facilitate this process. Being attuned does not mean that the psychotherapist forcefully intervenes; rather, they need to embrace a state of *being* instead of *doing* or *having*... "a feeling of well-being that accompanies the relaxation" (Fromm, 1989, p. 15). In this state of being, the psychotherapist remains open, with freely flowing attention to whatever is occurring.

The Client Creates the Psychotherapist

Biodynamic vegetotherapy, a client-centered approach, allows clients to form their image of the psychotherapist as a subjective-object, similar to Winnicott's "good-enough therapist" (Jacobs, 1995, p. 62). The therapist provides a "facilitating environment" (Winnicott, 1958) within a "potential space" (Winnicott, 1971a), resembling Winnicott's play space, where both the client and psychotherapist can "play," facilitating the expression of their entire personalities (Winnicott, 1964).

Winnicott's perspective that "there is no mother without a baby" applies here. The client constructs the therapist, much like infants fabricate the breast through their capacity for love or need (Winnicott, 1953). Consequently, the client influences the therapeutic relationship.

The therapist, like a good-enough mother, facilitates the regressed client's illusion of creation. As a technique to support this illusion during vegetotherapy in a regressive state, the therapist might, for instance, offer a cushion at the base of the thumb (anterior view) as a substitute for the breast to suck on.

The illusion of the therapist as a surrogate mother gradually dissipates, and the client evolves from complete dependency to independence (Winnicott, 1965b). Over time, the therapist becomes less involved (Winnicott, 1975, p. 238), allowing the client to tolerate the absence of the object (Winnicott, 1988b, p. 106) and develop "towards independence" (Winnicott, 1965b [1963], p. 83; 1965b [1960], p. 46). This process mirrors early development, from the infant's omnipotence through disillusionment, ultimately fostering independence within the therapeutic relationship.

A Parable of Two Psychotherapists in the Desert

We can use the metaphor of a parable involving two psychotherapists to better illustrate how the biodynamic psychotherapist operates within the reparative framework.

Two psychotherapists await a client at a desert oasis. After three days without food or water, the exhausted client arrives seeking help.

The psychodynamic therapist, who is focused on verbal communication, invites the client to discuss their hardships. In contrast, the biodynamic therapist, who views the client holistically, recognizes their immediate physical needs.

The biodynamic therapist provides food, water, and rest, saying, "See what feels right. Eat, drink, and rest if you wish. Then, we can talk if you want." This approach embodies the biodynamic principle that all needs are equally important, focusing on the client's overall well-being before engaging in verbal therapy.

What is the meaning of this parable?

This parable illustrates the contrast between traditional talk therapy and biodynamic psychotherapy (BP). BP prioritizes addressing all needs – including physiological needs – rather than just psychological work, recognizing the interconnectedness of body and mind.

BP holds that lasting change requires more than establishing top-down processes focused on reflection and re-evaluation of behavioral issues and conflicting self-representations (Mitchell & Black, 1995). It also considers the Freudian idea of bringing unconscious content into consciousness to be inadequate (Freud, 1933).

Instead, BP proposes an integrative approach and views the person as an undivided organism. This bottom-up process, rooted in the concept of primary personality (Boyesen, 1972, 1982), aligns with Winnicott's "desultory formless functioning" (1971a) and supports emotional and physiological regulation.

This approach echoes the thinking of Ferenczi, Balint, and humanistic clinicians like Rogers and Perls (Kramer, 1995).

In contrast to cognitive behavioral therapy, which asserts that emotional distress is the consequence of maladaptive thoughts (Ellis, 1962), and behavioral therapy, which claims that suffering results from irrational beliefs, BP assumes that emotional distress stems from a maladaptive embodied capacity for emotional and physiological regulation. This maladaptation disrupts internal connection with the primary personality (Boyesen, 1972, 1982), which is constructed from several qualitative components, such as the individual's positive developmental potential.

This assertion aligns with contemporary research by Bruce Perry in his neurosequential model of therapeutics (Perry, 2001, 2002, 2006; Perry & Szalavitz, 2006; Perry & Winfrey, 2021). According to Perry's model, human growth and development are predicated on the brain's hierarchical structure, and the developmental sequence of processes under optimal conditions is to fulfill an individual's genetic potential. This process begins with the lower and simpler structures of the brainstem, which are responsible for temperature regulation, respiration, heart activity, other ANS functions, and the seven prototype emotional systems (Panksepp & Biven, 2012). It then progresses to the diencephalon, which governs wakefulness, sleep, appetite, and movement, followed by the limbic system, responsible for reward, memories, connections, and complex emotions. Finally, development reaches the neocortex, the uppermost structure responsible for creativity, thinking, language, beliefs, values, time perception, and hope. It is only within the neocortex that psychoanalytical verbal reflection can emerge.

BP aims to influence the brain, beginning with the brainstem, through the use of touch, breath, movement, and other body-based psychotherapeutic techniques. According to affective neuroscience (Panksepp, 1998; Panksepp & Biven, 2012; Panksepp et al., 2014), we can assume that body-based biodynamic psychotherapeutic techniques engage with the "primary-process affective substrates for primal emotional feelings and behaviours" (Panksepp et al., 2014, p. 472). This suggests that these techniques target the foundational emotional processes that underlie basic feelings and behaviors.

Biodynamic psychotherapy emphasizes the development of abilities necessary for self-regulation and relationship regulation, trusting that neocortical abilities, such as recognizing, understanding, reflecting, and mentalizing one's inner processes and those of others, will develop as a continuation of the natural ontogenic process (the origination and development of an organism) within the psychotherapeutic encounter. From the perspective of affective neuroscience, the psychotherapist influences core subcortical brain mechanisms responsible for generating emotions and their associated actions (Panksepp & Biven, 2012). While the neocortex can interpret these emotional states, they do not require neocortical participation, as they origi-

nate from subcortical brain circuits. There is a natural evolutionary order and maturation sequence, beginning with improved emotional and physiological regulation processes at the primary process level in the brainstem, which ultimately supports the development and ordering of the mental apparatus (Davis & Montag, 2019), ultimately changing how life situations are predicted.

First-Order and Second-Order Affective States

Lambie and Marcel (2002) proposed a bi-level view of consciousness, distinguishing between first-order affective states (the phenomenology of emotion) and second-order affective states (the mode of awareness and attention). In clinical contexts, emotional processing (Foa & Kozak, 1986) can occur at the first-order level without conscious awareness.

The implicit emotional level involves body-based states and autonomic responses from the brainstem and diencephalon. First-order experiences are expressible without symbolization or understanding. Second-order experiences involve awareness, symbolization, and reflective processing in the neocortex. This distinction allows for body-based methods in psychotherapy.

Psychotherapists must navigate between first-order and second-order processes to meet clients' emotional needs. Conscious awareness emerges spontaneously, making interpretations unnecessary and potentially harmful.

In biodynamic psychotherapy, first-order affective states are communicated at the "it" level (Southwell, 2022b), enabling deeper self-experience. Moving to the "I" level (second-order) depends on the client's ability to recognize and acknowledge feelings and urges. The psychotherapist should trust the natural evolution of the client's self-awareness.

Introduction to the Reparative Model of Psychotherapeutic Relationship in Biodynamic Psychotherapy

Biodynamic psychology holds that reflection is vital in psychotherapy, yet often insufficient by itself.

True healing demands a comprehensive body-mind process involving all bodily systems. Biodynamic psychotherapeutic techniques are guided by multiple intentions, dimensions, and assessment domains, as depicted on intersecting axes. These axes span polarities to capture the complexity of human dynamics, eschewing simplistic dichotomies. The therapist often follows their intuition during sessions, guided by the client's process.

Reflection on the therapeutic process is essential, and uses dynamic assessment tools. These overlapping tools offer unique perspectives on the therapist's ability to provide a "good-enough" therapeutic presence, a cornerstone of biodynamic psychotherapy.

The Chick, the Egg and the Eggshell from the Lens of the First Two of Southwell's Seven Axes of Intention

The first group of seven axes of intention answers the question: What is the psychotherapist's intention in the session?

A second group of axes answers the question: What is the client's dynamic state ontologically (developmentally—at the depth level) and on the here-and-now level (the surface level)?

Biodynamic psychotherapy employs a reparative model, likening the primary personality to a chick and defense mechanisms to its eggshell. The therapist aims to nurture the chick directly, fostering growth from within by offering corrective emotional experiences (Alexander & French,

1946). This approach involves the intention of the psychotherapist (from the first group of axes) to offer "relational moves" leading to "transformative co-constructed 'now moments'" (Stern et al., 1998) that meet the client's developmental needs. As the "chick" grows stronger, it cracks the eggshell (the defense mechanisms) from within, rather than the psychotherapist confronting the client and breaking the "eggshell" from outside.

This method contrasts with potentially misattuned techniques in bioenergetics or classical psychoanalysis, which metaphorically crack the eggshell from outside. It aligns with Spagnolo and Northoff's (2021) concept of shared time and space, and aims to recover Winnicott's "personal continuity of existence" (1953, 1967). This is similar to Perry's approach, and embraces Clarkson's (2003) reparative relationship model while addressing developmental needs and deficits (second group of axes).

Emotional arousal remains crucial for therapeutic change (Lane et al., 2015), particularly within a developmentally sensitive reparative relationship. This entails reliving experiences through the bodily felt sense, akin to Bowlby's (1969-1982) goal-corrected partnership concept (Wells et al., 2023).

The approach supports Winnicott's notion of mature integration into "a unit" with a sense of "I AM" (1965b, 1975), facilitating what Boyesen terms "independent well-being" (1981, 1982, 2022b).

Meeting Clients' Basic Psychological and Physiological Needs Underlies All Biodynamic Methods

In all therapeutic encounters, biodynamic psychology is guided by meeting the individual's basic needs according to their developmental sequence (second group of axes). This principle informs interventions such as dialogue, physical proximity, and touch, and encompasses various levels of contact – emotional, mental, and physical – through biodynamic massage, vegetotherapy, and rooted talking. Responses to needs may occur at both adult and child levels, ensuring a holistic approach to the person as a living organism.

Responses to Needs on the Adult Level

At the adult level, we engage as equals, fostering originality and contribution–a "real personal relationship" versus "true transference reactions" (Greenson & Wexler, 1969, p. 27). Humanistic and integrative psychotherapy approaches extensively developed this "non-transference relationship" concept (Rogers, 1951). Anna Freud also advocated for this "real personal relationship" between analyst and patient of "equal adult status" (Freud, 1954, pp. 372-373).

This relates to the desert parable, exemplifying what Gerda Boyesen called the practical, trivial level (Boyesen, 1986 [2022a]). The psychotherapist respects the client's timing, aligning with BP's principle that clients are always right about their feelings and timing. Responses to developmental needs at the child level, particularly within regression work, reflect the ideas of Ferenczi (1933) and Balint (1935b): "Such a development by means of regression is the necessary precursor of every new beginning" (Haynal, 2002, p. 58).

Winnicott's three developmental stages – absolute dependence, relative dependence, and "towards independence" (1965b, p. 84) – form a delicate progression. He posited, "No stage can be missed or marred without ill-effect" (1964, p. 85). Regression allows us to revisit these missed milestones on the timeline of emotional growth.

In our desert parable, the biodynamic psychotherapist, like a nurturing oasis, first quenches the thirst and satiates the hunger of basic organic needs, all within the emotional context of the missed developmental stage.

What If the Psychotherapist Ignores the Client's Developmental Needs?

Ignoring developmental needs breeds negative transference and projections. Gerda Boyesen posited that psychotherapists' failure to satisfy natural needs engenders challenging emotions like hate (Heller, 1987; Tanguay, 2022b). Conversely, addressing these needs diminishes hate, elevates contentment and love, and functions as an emotionally corrective experience (Alexander & French, 1946, pp. 66-70). It also supports the reconsolidation of memories and incorporates new emotional experiences.

In touch-based therapy, attuned positive transference is crucial (Steinberg, 2024). Gerda Boyesen astutely queried, "How can you be massaged by somebody you hate?" (Heller, 1987, p. 3).

Like nurturing parenting, biodynamic psychotherapy satisfies primary needs through direct contact. This aligns with Ferenczi's and Balint's concept of seeking reparation for missing primary love (Haynal, 2002, p. 57; Balint, 1935a, p. 50). In Balint's view, primary love – the desire to "be loved always, everywhere, in every way, my whole body, my whole being – without any criticism, without the slightest effort on my part" (Balint, 1935a, p. 50) – is the primary tendency in transference love.

The biodynamic psychotherapist, guided by "organic transference" (Stattman, 1968), becomes like a surrogate parent, attuned to basic needs and startle reflex remnants accumulated due to empathic failures (Boyesen, 1970 [2022]; Boyesen M.-L., 1974b, 1977). Through vegetotherapy and biodynamic massage, BP therapists offer a "sustaining echo of empathic resonance" (Kohut, 1984) and satisfy the need for primary love as a body-mind-soul energy process via "direct vegetative contact" (Reich, 1945, p. 324) at the primitive edges of experience, finally resolving some of the developmental arrest.

This could become a transpersonal process that resonates between two "core layers" of the primary personality (Boadella, 1981, p. 80), mirroring Winnicott's "good enough mother" "who makes active adaptation to the infant's needs, an active adaptation that gradually lessens, according to the infant's growing ability to account for failure of adaptation and to tolerate the results of frustration" (1988a, pp. 3-14; 1953, pp. 13-14). It establishes a substitute contact, reaching beyond to cosmic energy and universal love – a genuine, present-centered relationship.

The Desperate Hunger for Absent Primary Love Leads to Aggressive Feelings and Behavior and Can Be Soothed by Good-Enough Vegetative Contact with the Psychotherapist

The yearning for absent primary love breeds aggression, which can be soothed by the psychotherapist's nurturing touch. Balint mused, "Aggression is no more than a reaction to this missing primary love" (Haynal, 2002, p. 57). In biodynamics, this void fuels inner "thirst & hunger," the "neurotic transference" (Stattman, 1968; Heller, 1987).

Reich (1945) distinguished "substitute contact" from "direct vegetative contact," both sustained by vegetative instinctual energy. He illustrated this with a case of repressed aggression manifesting as neurotic compliance: "Once the immediate vegetative contact with the world has been more or less destroyed, when the remaining traces of vegetative contact are no longer sufficient to preserve the relationship to the outer world, either substitute function develops or there are attempts to establish a substitute contact" (p. 324). He claimed that there is a need for natural contact with the full affective state of aggression, and conscious awareness (the second-order affective state) of the felt sense of the body's autonomic function (first order emotional state).

Within a clear ethical framework (Southwell, 1991), developmental needs are met during vegetative regression. A "good enough" psychotherapist rehabilitates "basic trust" (Boyesen M.-L., 1973), shifting the client from Erikson's (1950) basic mistrust to hope and agency.

This aligns with current psychology and neuroscience: "Accessing the unmet need associated with maladaptive emotions and promoting a sense of rightfully deserving to have the unmet childhood need met creates a sense of agency" (Lane et al., 2015, p. 7).

Accepting the Need Does Not Necessarily Mean Concrete, Non-Symbolic Fulfillment of the Need

Accepting a need doesn't always necessitate its concrete fulfillment. The path is nonlinear; sometimes, withholding touch is the right intervention (Casement, 1985), while at other times, physical touch is essential for relational affirmation (King, 2011), lest the client experience neglect (Zur, 2007). The intervention will be guided by a framework that facilitates secure attachment.

Unattainable early needs, such as returning to the womb, can be met symbolically through imaginative work or empathetic resonance. In regressive work, interventions aim to foster secure attachment by maximizing attunement and offering concrete support. For instance, the client might be invited to lie in a fetal position on a mattress on the

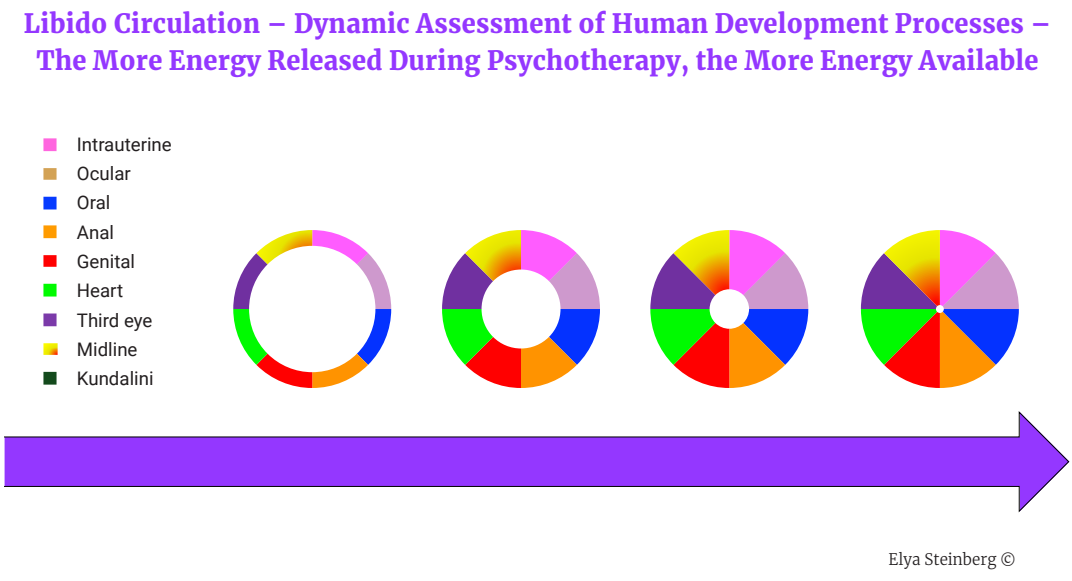


Figure 1. *The evolution of libido circulation: As earned secure attachment develops, libido circulation evolves, as illustrated by the process of thickening circles. This represents increased energy available for self-fulfillment and independent well-being.*

floor, covered with a heavy blanket, and take time to rest in a regressive state similar to that inside the womb.

In any case, it is important that need satisfaction is followed by discourse in vegetotherapy's final stages (Southwell, 2022a), thus bridging the gap between unfulfilled needs and reality.

These final stages of vegetotherapy offer conscious understanding of the unconscious predictions of unmet needs, as discussed in neuropsychoanalysis (Balchin et al., 2019). They create space for analytical freedom, allowing both therapist and patient to examine prior experiences while updating predictions to current realistic possibilities.

Differentiation Between the Client's Present and Past

Gerda Boyesen advocated separating present from past (Heller, 1987; Tanguay, 2022b). When erring, psychotherapists must apologize, and not accuse clients of transference. This authenticity, crucial in biodynamic processes involving touch, echoes the approaches of Ferenczi (1933) and Clarkson (2003).

Clarkson (2003) posited five therapeutic relationship strands: working alliance, transferential/counter-transferential, reparative/developmentally needed, person-to-person, and transpersonal. These interweave subtly, guided by client needs, yet shouldn't be mixed – especially the transferential/counter-transferential relationship and the reparative/developmentally needed relationship.

Biodynamic psychology distinguishes tools for oedipal/post-oedipal processes from those for early trauma (pre-oedipal processes). The pre-oedipal, pre-autobiographic self (Stern, 1985) is worked with through organic transference within a reparative, non-confrontational approach.

Revisiting our desert parable: as organic needs are met, health naturally blossoms. The client develops "earned secure" attachment (Wallin, 2007, p. 85), enhancing libido circulation and self-fulfillment. (Figure 1)

Regression A Passage Through Time: Entering a Wormhole

In biodynamic vegetotherapy, clients undergo benign regression, a process Balint (1968, p. 141) de-

fined as serving the self. This journey facilitates a new beginning through memory reconsolidation, similar to that described by Lane et al. (2015).

The process involves three key aspects:

1. Reactivation of memories and contact with felt needs (first-order emotional state). For example: a yearning (emotional arousal) to be hugged.
2. A regressive state to a child level, where the client experiences "vegetative contact" with themselves and the therapist, fulfilling long-held needs in the present. For example: the psychotherapist provides physical contact (a hug) that expresses care and sympathy within clear ethical boundaries.
3. Return to an adult level with verbal processing, making sense of the experience and applying it to life. For example: "reinforcing the integrated memory structure by practising a new way of behaving and experiencing the world in a variety of contexts" (Lane et al., 2015, p. 1).

This process can be likened to an Einstein-Rosen wormhole (Christian, 2013) that creates a shortcut between the traumatic past (B) and the present here-and-now (A), which are connected by a spacetime conduit (C). While the client's physical body doesn't travel, their conscious awareness can safely navigate this passage during benign regression.

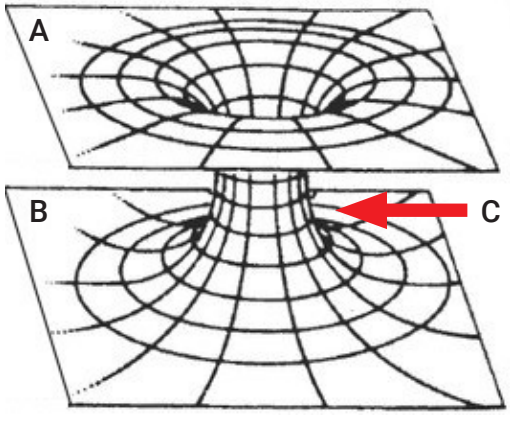


Figure 2. *Wormhole. The figure illustrates two space-like or time-like separated regions of space-time. (A) represents the here-and-now; (B) represents the past; and (C) is the throat of the wormhole.*
(Photo by Unknown Author, licensed under CC BY-SA)

The journey allows for a "corrective emotional experience" (Alexander & French, 1946), satisfying instinctual drives for primary love (Balint, 1935a, 1968). This liberates suppressed energy (Reich's "vegetative instinctual energy," 1945), enabling the completion of integrated sequences in the emotional- vaso-motor cycle (EVMC) (Southwell, 2022c).

The EVMC aligns with the medical concept of allostasis, defined by McEwen (1998) as "the ability to achieve stability through change" (p. 171). This process supports dynamic regulation and the adaptive responses of body and mind to ever-changing life situations.

Through this time-transcending journey, biodynamic vegetotherapy offers a chance to reestablish the subjective embodied sense of self, impacting past ruptures in present time within a reparative psychotherapeutic relationship framework.

The Dynamic Moment

In the "dynamic moment," past embodied content emerges into the present, as it might in time travel. The client's neuroception alters, reactivating original affective states. Senses and visceral affects are re-experienced, and resonate between client and therapist (Boadella,1981; Stattman, 1968). This moment allows the self to reclaim lost experience, thus nurturing the growth of the primary personality. As Gerda Boyesen posited, aspects of self, halted by trauma or developmental deficits, can now evolve. The liberation of trapped energy (akin to releasing allostatic load) enables the primary personality to expand, returning to the present more acknowledged and developed.

Bottom-up Healing: Emotional Time Travel in Regression

Perry and Hambrick (2008) note that brain development progresses "from bottom to top" (p. 40) – from brainstem to neocortex. Biodynamic psychotherapy uses this principle by offering developmentally sensitive interventions that simulate early childhood experiences – for example, providing attuned touch to a person deprived of attuned touch in early childhood.

Through benign regression, clients enter an emotional wormhole, reliving past experiences and

reviving dormant developmental potential. This bottom-up approach, including attuned touch, stimulates lower brain regions, including the periaqueductal gray (PAG) and brainstem, autonomic nerve nuclei in the brainstem, and insula and promotes the production of oxytocin. This stimulation may support the development of secondary and tertiary processes in the cortical areas.

This process aligns with Panksepp's (2012) concept of the mind traveling "backward and forward" (p. 5) to create new aspirations and plans. Biodynamic therapy allows for revisiting past traumas to experience corrective emotional experiences, and is guided by the client's process rather than the therapist's agenda. Together, client and therapist emotionally relive the past, and revive the positive developmental potential that had been halted.

The approach is sensitive to Southwell's axes and the varying needs across human developmental phases. It trusts in the client's innate healing process, while avoiding retraumatization that might occur in provoked cathartic experiences.

By facilitating this emotional time travel, biodynamic psychotherapy aims to support the continuation of developmental sequences as if they were occurring in early childhood, thus potentially healing and completing interrupted growth processes.

Separation and Individuation in Regressive Processes

Clinical data from biodynamic regression sessions suggest that fetuses and infants recognize "not-me" entities (Winnicott, 1953), thus reflecting interpersonal intelligence in self-other interactions (Trevarthen & Malloch, 2009) as well as separateness. Clinical experience suggests intrasubjective and intersubjective states coexist from conception, challenging Mahler's symbiosis phase (Mahler, Pine, & Bergman, 1975).

Physical separation exists even in utero via the placenta. During regression interventions, this raises questions about self-other differentiation throughout development.

Further systematic research into regression states in biodynamic psychotherapy is needed to fully understand these early self-other dynamics and their implications for therapeutic practice.

"Being" in a state of self differs from the process of reflecting on that state. However, the initial "being state," which originates as a primary process) must precede the later reflection on that state, a tertiary process. This progression is essential for constructing a sophisticated self-other representation, a requirement in both psychoanalysis and biodynamic psychotherapy.

Dynamic Updrift: Unleashing the Inner Core

The concept of dynamic updrift was introduced in 1980 to describe the liberation of a person's inner stimuli, representing their living core pressing for acknowledgment (IFBP, 1980 [2022]; Boyesen, G., 2022, p. 1173). This phenomenon manifests as an energy wave moving from the lower to the upper body, and originates from interoceptors (bodily sensors that detect signals from the body's internal environment, primarily the viscera and internal milieu) (Damasio, 2003) and implicit memory (Budson & Price, 2005).

Dynamic updrift often emerges from past experiences where the EVMC was interrupted, disturbing libido energy circulation. Accumulated disturbances, or allostatic load, can disrupt emotional and physiological regulation throughout life, potentially leading to developmental trauma or complex post-traumatic stress (c-PTSD). In Wilhelm Reich's terminology, this creates the "muscular armor" and shapes the person's character, inhibiting genuine feeling and expression (Reich, 1945).

In biodynamic psychotherapy, the therapist's presence is crucial in encouraging this updrift of the true self (Southwell, 2022d). During vegetotherapy sessions, clients may relive past experiences and tap into their "embodied-embedded level" (Linson & Friston, 2019), thus allowing unacknowledged emotions to be processed within a safe environment. This enables clients to update their prior learning (Friston, 2010) and, consequently, their predictions – a function often underdeveloped in individuals with c-PTSD (Linson & Friston, 2019).

The biodynamic approach views emotions as psychobiological processes with natural courses of rising and falling (via the EVMC). When this process is obstructed in childhood, emotions and memories can be suppressed, interrupting the natural cycle.

Therapy aims to remove these obstacles, effectively "unloading" McEwen's allostatic load (1998).

From Darwin (1872) to contemporary affective neuroscience (Panksepp, 1998, 2012), emotions have been recognized as vital for human and animal evolutionary development. In biodynamic psychology, emotions are not judged as good or bad, but are seen as motivational forces for self-preservation within social contexts.

This perspective aligns with Rousseau's (1762) organismic approach, which posits that children are born with largely positive tendencies, and that the role of adults is to clear obstacles for natural development. Rousseau argued, "The mind should be left undisturbed till its faculties have developed" (1762, p. 24). This thinking influences various educational and psychological modalities, including Winnicott's concept of the "good-enough" parent or therapist (Winnicott, 1953).

In biodynamic sessions, as the emotional cycle completes, clients often rediscover buried feelings and reclaim their sense of self (Southwell, 2022a). This process resonates with Janet's "stage of triumph" (Janet, 1925, p. 669), which allows the free flow of libidinal energy. Southwell describes how, during sessions, "the client discovers the feelings he had buried away, reclaims his sense of self and rejoices in the energy libido flowing freely through his body" (2022a, p. 1271).

Unique to biodynamic psychotherapy is the use of psycho-peristalsis to clear residual stress through vegetative discharge. This involves activating the enteric nervous system, or "second brain" (Gershon, 1998; Rao & Gershon, 2016), as well as the parasympathetic nervous system via non-invasive vagal stimulation (Steinberg, 2016). The therapist may use different types of biodynamic massage to facilitate this process, supporting the client's natural self-regulation.

By supporting the client's sense of safety related to vagal function, the therapist aids the client in recovering their hidden potential and strength. This process of dynamic updrift, rooted in the body's wisdom and supported by attuned therapeutic presence, forms the cornerstone of biodynamic psychotherapy's approach to healing and self-discovery.

The dynamic updrift process often involves a benign regression, in which clients revisit past events, reconnecting with and reviving the perceptual embodied elements of these experiences. During these regressive states, clients may not have verbal memories of early childhood events, but instead relive them as embodied, reactivated emotional experiences. This allows for a deeper processing of emotions that may have been previously unacknowledged or unexpressed.

Through the therapist's attuned presence and facilitation of "organic transference" (Stattman, 1968), clients can experience emotionally corrective experiences. This enables more complete emotional processing via the EVMC, supporting the client's dynamic adaptation and regulation in their current life, and improving their "reality testing."

In essence, the dynamic updrift in biodynamic psychotherapy represents a holistic approach to healing by recognizing the intricate connections between body, mind, and emotion. By facilitating the natural flow of energy and emotion, and addressing physical and psychological blockages, this method aims to restore the client's innate capacity for self-regulation and growth. It embodies the belief that within each individual lies the potential for healing and self-actualization, which are waiting to be unleashed through the dynamic updrift process.

The Psychotherapist as a Good-Enough-Surrogate-Parent: Bridging Fantasy and Reality

In biodynamic vegetotherapy, the transition from psychotherapist as subjective object to realistic figure occurs gradually in the final stages of vegetotherapy (especially if regressed to a preverbal stage). This natural developmental process cannot be rushed, and requires space for separation. Crossing the bridge "toward independence" is never absolute (Winnicott, 1965b, pp.84-85), and follows the internalization of Winnicottian qualities of a good-enough surrogate parent (Winnicott, 1953, 1971a). The process of separation and mourning has at least two stages: separation from the omnipotent figure of the psychotherapist, who serves as a good-enough surrogate parent instead of the original parent (the second stage of mourning), who did not provide good-enough experiences in childhood.

This aligns with Mahler's view of separation as natural personal growth (Jacobus, 2022 [1995]). In

biodynamic psychotherapy, separation occurs organically when the therapist supports the client's connection with their primary personality, thus facilitating movement from dependency to independent wellbeing (Boyesen, M.-L., 1981; Boyesen, E., 1981; Boyesen, G., 1982).

Along the same lines as BP, Winnicott's concept of maturity develops naturally after the therapist provides opportunities (Winnicott, 1965b, p. 103) and allows for immaturity without premature interpretation (Winnicott, 1971a, p. 117). "Mature adults... must believe in their own maturity as never before or after" (1971a, p. 145).

Biodynamic techniques can be seen as quantum-like, as in the fabric of Winnicottian thought, stemming from "the basic principle of the initial merging with a human mirror" (Kulka, 1995). This enables a healing, salutogenic experience of creative self-realization, unlocking the potential within the primary personality.

Regression: A Working-Off Mechanism in Biodynamic Psychology

In biodynamic psychology, regression is viewed as a benign process supporting the primary personality's evolving potential rather than as a defense mechanism (Balint, 1968, p. 153). This approach contrasts with "classical" psychoanalytic perspectives (Freud, S., 1900, 1909a, 1909b, 1910; Freud A., 1936), as regression is instead understood as an opportunity for corrective emotional experience.

Ernst Kris distinguished between two forms of regression: unregulated post-traumatic flashbacks (Brewin, 2015) and "regression in the service of the ego" (Balint, 1968, p. 153). Balint termed these "malignant" and "benign" regression, respectively. Biodynamic psychology emphasizes building ego structure and restoring "vegetative equilibrium" (Southwell, 1977, 1982) before employing regressive techniques.

In this context, regression functions as a working-off mechanism (Bibring, 1943) that strives to realize the subject's possibilities rather than urgently reduce internal tensions. This perspective differs from Sigmund Freud's view of repetition compulsion (Freud, S., 1909c, 1914, 1926) and suggests that supervised repetition of difficult experiences allows gradual tension reduction by changing internal conditions.

It is important to note that while psychoanalysis and neuroscience use similar terminology, their definitions of primary process differ significantly (Panksepp, 1998, 2011a, 2011b).

Final note: Regression in Biodynamic Vegetotherapy: Varied Experiences

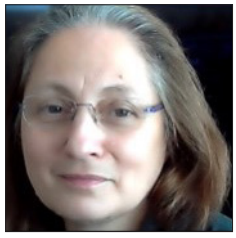
Not all vegetotherapy sessions involve regression. Southwell (2022a) notes that sessions "vary enormously: in shape, intensity, and the nature of the client's experience" (p. 1271). The energy liberated may manifest in lighter forms, leading to diverse experiences, including "archetypal, orgonomic or transcendental" (p. 1271).

Southwell emphasizes that the healing process is fundamentally energetic – liberating repressed energy and integrating it into the client's circulation at the muscular, vegetative, and psychological levels. This highlights the importance of the therapist's flexibility and mindful presence, without attachment to preconceived agendas or judgments.

Biodynamic vegetotherapy, therefore, is "essentially an energetic process" (Southwell, 2022a, p. 1271), encompassing a wide range of potential therapeutic experiences beyond regression.

In Summary

Biodynamic psychotherapy (BP) is a holistic approach supporting salutogenesis through reparative relationships and corrective emotional experience. It employs biodynamic touch, vegetotherapy, and rooted talking to activate affective systems and regulatory processes. The "dynamic updrift" concept refers to releasing suppressed energy from past disruptions. Through benign regression, clients process these experiences, fostering growth. The therapist acts as a surrogate parent, providing a safe environment for self-integration. BP aims to meet developmental needs, enabling clients to access their innate potential and develop secure attachments.



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Since 1982, they have used touch to work with clients. Their work integrates bioenergy, biodynamic psychotherapy, martial arts, integrative medicine, and neuroscience, with a strong affinity for salutogenic concepts. They seek to question dominant gender narratives in psychotherapy, honoring and elevating people's lived experiences over social constructs and dogmas. They aim to support people who wish to integrate their biopsychosocial realities to achieve self-actualization.

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Do Babies Need Psychotherapy?

An Introduction to Integrative Baby Therapy

Matthew Appleton

ABSTRACT

Integrative Baby Therapy (IBT) is an embodied relational approach to working with babies developed by the author. The theoretical basis and practical application of IBT skills draw from various sources, particularly Body Psychotherapy, Craniosacral Therapy, and Pre- and Perinatal Psychology. IBT represents a specific synthesis of the innovative groundwork laid by practitioners and researchers in these and other fields, all of which are acknowledged throughout the text. The focus of IBT is short-term crisis intervention to support parents with distressed babies and young children. Parents frequently report long-term benefits from these interventions. The typical age range for this therapy spans from shortly after birth to two years of age. Although the IBT approach can be adapted for older children, that topic falls outside the scope of this paper. Central to the practice of IBT is the creation of an empathic space where babies can integrate prenatal and birth experiences that may have been overwhelming. They express these experiences through *Baby Body Language* and *Memory Crying*, both of which are explored in this article.

Keywords: self-regulation, babies, birth trauma, prenatal stress

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> ***Research and clinical practice in the field of Pre- and Perinatal Psychology demonstrate that the memory of prenatal and birth traumas persists as unconscious imprints that powerfully influence us throughout life.***

The World of the Newborn, Infant, and Prenatal Person

The first 18 months of life, from conception onwards, constitute a foundational period that will have life-long consequences in terms of psychological and somatic development, with a high degree of influence on the future functioning of the autonomic nervous system (Odent, 1986). In recent decades, research into the world of the newborn, infant, and prenatal person or prenate has revealed a much richer strata of human experience than previously recognized (Chamberlain, 1998; Chamberlain, 2013; Stern, 1998). However, much of this research has failed to make its impact on prevailing cultural concepts or mainstream healthcare, including pediatrics, obstetrics, and midwifery. This inevitably impacts the well-being of the prenate, newborn, and infant. The existence of memories from prenatal life or birth is often treated with disdain by psychiatrists and many psychotherapists,

as well as by the public at large. The result of this is that many children, adolescents, and adults do not receive the appropriate care they deserve.

From the perspective of Integrative Baby Therapy (IBT), an important beginning in reassessing this formative territory begins with the research of Wilhelm Reich in the late 1940s. Reich's shift from psychoanalysis to working directly with the body gave him deeper access into the realm of preverbal experience. Concerned not only with the fate of the individual, but also with that of future humanity, a major focus of his work became "the study of the healthy child" (Reich, 1983, p. 7) and how to protect the child from damaging cultural influences and institutions. This marked a shift from predominantly therapeutic work to preventative concerns. He attributed the "source of the human 'NO' [to life]" (Reich, 1983, p. 3) as having its roots in how the infant is greeted at birth and the period shortly after, as well as in the womb environment. Research in the field of Pre- and Perinatal Psychology elaborates this theme (Brekhman, Turner & Gouni, 2021; Janus, 2001; Ruppert, 2016).

Reich was aware that his research into the nature of the human infant was in its infancy. Profoundly aware of how trauma was passed down through the generations and had become institutionalized in obstetrical and educational practices, he envisioned a future generation of children – *Children of the Future* – who might be free of these traumas and the need to contract against the harshness of the world at the beginning of life.

> It will take several generations of newborn infants growing up under an ever-widening horizon of knowledge of the child's true nature before the first signs of the world of the Children of the Future begin to appear. It is not the inborn nature of the child that constitutes the difficulty. The trouble lies in the thinking and acting of educators, parents, and physicians. It lies in the maze of wrong opinions which have nothing to do with the child. (Reich, 1983, p. 38)

The "wrong opinions" referred to by Reich include the idea that babies do not feel pain at birth, along with harsh obstetrical practices, separation from the mother after birth, timetable feeding, and harsh toilet training. Along with A. S. Neill, the founder of Summerhill, the democratic school in England, Reich advocated self-regulation for babies and children. As used today, self-regulation refers to methods of regulating the autonomic nervous system so as to manage stress levels (Shanker & Baker, 2016). Reich and Neill used the term differently, to indicate the innate capacity for full aliveness, which they believed was inhibited and distorted by the birthing and childrearing practices of their time. According to Neill, "Self-regulation means the right of the baby to live freely without outside authority in things psychic and somatic" (Neill, 1953, p. 42). This approach promoted a "lively awareness and appropriate response to the child's needs, emotions and impulses" (Fuckert, 2011).

Self-regulation is a central principle in IBT. Much of what Reich was advocating in terms of the nature of the infant has now been validated. For example, a 2015 study at Oxford University concluded that newborns were far more sensitive to painful stimuli than adults (Goskan et al., 2015). The adverse impact of separating babies from their mothers following birth has also been well-documented (Császár-Nagy & Bókkon, 2018, pp. 337-351). However, cultural myths and ingrained institutional habits are slow to change. Research and clinical practice in the field of Pre- and Perinatal Psychology demonstrate that the memory of prenatal and birth traumas persists as unconscious imprints that powerfully influence us throughout life (Feher, 1980; Lake, 1986; Noble, 1993). Craniosacral therapists are able to palpate and treat these traumas as expressed at the somatic level (Agustoni, 2013). However, they may lack the skills to support and integrate any strong affect associated with these traumas.

In IBT sessions, babies are active participants, exhibiting an innate knowing of what they need, and a much higher degree of expressing themselves than posited by the prevailing understanding of infant behavior. This includes specific body language and associated emotional expressions that convey unresolved birth trauma and prenatal stress. In so far as these gestures by the baby are not understood and met with appropriate empathic responses, the baby withdraws from contact and tenses up, having no satisfactory avenue of expression through which to discharge tension. This is poorly understood by both parents and the medical profession. Dr. Kevin Nugent, director of the Brazelton Institute at the Children's Hospital, Boston, writes in *Your Baby is Speaking to You*, "Not all babies are cuddly. Their small bodies are rigid and so sensitive to touch they seem to recoil from their parents' ef-

forts to hold them close… if she feels stiff and rigid despite your best efforts to cuddle her, you need to recognise that this is simply how she is" (Nugent & Morell, 2011, p. 48). While aiming to reassure parents, this unfortunately normalizes stress and trauma held in the baby's body. This keeps the baby trapped in the stress or trauma. In IBT sessions, we often work with babies who at first are holding themselves rigidly, but become soft and flexible as we engage with their body language and emotional expressions in a relational and empathic way. This, in turn, enables deeper bonding between baby and parents as greater trust and relaxation of all parties is established.

A New Cartography of Early Human Consciousness

IBT draws upon the lineage of working directly with the embodied expression of prenatal and birth experience, which begins with psychiatrist Frank Lake. In the 1950s, Lake began to uncover birth memories in his patients with the use of lysergic acid (LSD-25) during clinical research (Peters, 1989). Later, he began working in small groups while encouraging relaxation and deep breathing to elicit birth and prenatal memories (Peters, 1989). This shift from the use of LSD to breathwork follows the same trajectory taken by the more famous Czech psychiatrist, Stanislav Grof (Grof, 2010). Towards the end of his life, the Scottish psychiatrist R.D. Laing also focused on exploring these formative processes, and actively promoted awareness of the lifelong influence of prenatal and birth memories (Laing, 1976). These included cellular memories going back to conception (Laing, 1976; Lake, 1981). The fact that prenatal and birth memories can be uncovered in this way hugely challenges the dominant paradigm of how memories are laid down, and the nature of human consciousness. Since Lake's initial findings, there has been significant research to suggest the emergence of a new model of consciousness that expands upon the narrow model of consciousness as an epiphenomenon of the brain (Gober, 2018; Sheldrake, 2022; Verny, 2021; Whitmont, 1993). However, this research and acceptance of the existence of prenatal and birth memories remains marginal to the mainstream materialistic worldview. This "cultural blind spot" (Appleton, 2020a) can create significant difficulties for practitioners in this field, especially in working with infants.

These early pioneers of what was to become the field of Pre- and Perinatal Psychology did not work directly with infants, but they developed a cartography of prenatal life – birth from the perspective of the baby, which informed later therapeutic work with babies. Themes and imagery associated with specific prenatal and birth stages began to emerge, and were developed by subsequent researchers and practitioners (Emerson, 2004a; Emerson 2004b). Spontaneous body language correlating to different prenatal and birth stages was also identified (Appleton, 2020; Farrant & Larimore, 1995; Terry, 2022). Further clarification of the somatic impact on babies of the birth experience came from cranial osteopaths and craniosacral therapists (Arbuckle, 1994; Sills, 2004). Direct body-based psychotherapy with babies began with psychiatrist William Emerson (Emerson, 1989), and was further developed by other practitioners, such as Karlton Terry (Terry, 2022) and Ray Castellino (Highsmith et al., 2021).

Terry uses the term *baby body language* (BBL) to describe the somatic signals that babies show in relation to their prenatal and birth experience (Terry, 2022, p. 47). This is a parent-friendly term that can be easily understood. Adults and older children also express BBL. Along with the themes and images that emerge in therapy, BBL can help identify the influence of a particular prenatal or birth stage that is shaping a present-moment situation. BBL emerges out of the unconscious, but by drawing attention to this implicit body memory, and exploring it as part of an embodied relational dialogue, more of the early story may emerge to be engaged in a meaningful way. BBL as expressed by infants is no different, except that they cannot verbalize their inner worlds in the ways that adults can. However, babies directly express the emotional quality associated with their BBL, as they have no social filters to inhibit it. As BBL is often associated with prenatal and birth stress or trauma, it can often be accompanied by strong crying. Terry calls this *memory crying* (Terry, 2022, p. 35). One of the main reasons that parents give for bringing babies to IBT sessions is "inconsolable crying." Seeing this as meaningful, and as something that can be navigated, often frees parents from helplessness and self-criticism, such as "I must be doing something wrong."

In the IBT approach, BBL and memory crying are seen as attempts to elicit an appropriate empath-

ic response from the environment. This is part of the infant's instinctual repertoire, rather than a conscious decision to try and elicit a response. The capacity to consciously elicit a response from the environment does not develop until around 18 months of age, and fully matures only between the ages of four to six years (Firth & Firth, 2003). The ability to communicate the need for an empathic response to a prenatal or birth-related issue is another expression of an infant's innate attempt at self-regulation, which expands on the concept as originally described by Reich and Neill. Both were aware that babies and young children are unable to regulate their own stress levels or meet their own needs, but are dependent on caregivers to be attuned to their needs (Neill, 1953, Reich, 1983). Understanding this need for co-regulation between baby and adult caregiver has been further developed in recent decades through infant observation research (Beebe, Cohen & Lachmann, 2016) and interpersonal neurobiology (Sanders & Thompson, 2022). What IBT integrates into its therapeutic approach to working with co-regulation disturbances are the roles of BBL and memory crying in infant-parent communication.

The Dynamic Principles of Integrative Baby Therapy

There is no such thing as a typical IBT session. Parents and babies arrive in the therapy room in many different configurations and varying levels of stress. Therefore, protocols are of little use. Instead, IBT practitioners work with a set of dynamic principles, which can inform each situation in a fluid and lively manner. Embodied presence is one of the core principles for the IBT practitioner. Trainees are taught to connect with their midline – a practice derived from craniosacral therapy (Sills, 2004), and to attune to the heart – using the framework of heart-to-heart entrainment as developed by the HeartMath Institute (Dahlitz & Hall, 2015). Families often arrive feeling very stressed, and cycling between feelings of helplessness and hopelessness. This can be especially intense when the baby is crying inconsolably. The calm embodied presence of the practitioner helps the parents co-regulate. This creates a *coherent relational field* or *good enough holding environment* (Sills, 2009, p. 123) in which to explore what is happening in both parents and infants.

If possible, both parents are encouraged to come to sessions. Although their reason for coming is usually an issue with the baby, babies are embedded in the family system, and are extremely sensitive to the parents' stress levels. One way we explain this to parents is that they are like an extended nervous system to the nervous system of the baby. High stress levels communicate to the baby that the environment is not safe. So, although the baby is being seen as the "problem," the issue is often stemming from the environment. The baby is simply responding to it. Many parents carry their own trauma from the birth (Svanberg, 2019). They may feel objectified, violated, or disempowered by medical staff, or ashamed and guilty that they could not stand up for themselves or their baby at this time. With a new baby demanding all the attention, many parents have not had the space to talk about the birth and share their feelings. Their own birth and early childhood traumas can also be stimulated by the birth and becoming parents themselves. At the beginning of a session, everyone – both parents and baby – feels alone in their distress. Creating a *potential space*[1] for everyone to be deeply listened to begins to create connection and a larger container for deepening into the therapeutic process, as each individual story is woven into the whole picture.

Attention is always being brought back to present-moment embodied experience. Questions such as "What are you noticing now?" or "What's happening in your body?" encourage awareness and presence. When stress levels rise, parents are encouraged to pay attention to the breath, and to keep breathing. Holding the breath is a natural stress response to an inconsolably crying baby. However, this builds tension, and parents become caught in a feedback loop of breath-holding, muscular tension, and ongoing stress. At the same time, rather than being present and embodied with their baby, parents will frantically try to figure out what they should do. This creates another stress feedback loop whereby the babies are flooded by the parents' stress, and are alone in their own stress. Babies lose

1. A term borrowed from Winnicott (Winnicott, 1986).

the embodied presence of their parents when the parents are up in their heads, rather than down in their bodies. Bringing attention to the breath can help parents come back into the body, become present, and break out of the feedback loops of stress in which they have become trapped. This is not always an easy process, and may demand a lot of patience on the part of the therapist.

Physical contact may also be offered to a distressed parent, usually in the form of a supportive hand on the back, which we call an *emotional anchor*. It offers stability in the emotional storm. The therapist encourages the parent to feel into the contact and describe what they are noticing. As well as offering support, this also brings awareness back into the body. This can be especially beneficial when trying to open up a potential space for a baby who is intensely memory crying. What the baby needs in these circumstances is to be empathically listened to and mirrored, rather than being shushed.[2] Having our stories heard and appropriately responded to does not begin with the capacity for speech, but is there from the very beginning of life. However, this is not an easy task, as it is counter to what we may have been taught about babies. Also, if we learned early in life that it was not safe to express strong emotions, our own unheard stories and traumas may get stimulated. The emotional anchor helps raise the parents' tolerance threshold. Through this contact, the therapist can also reflect back to the parent when they have begun to lose presence, and spin off into frantic solution-seeking or disaster scenarios. Through repeating these processes a number of times, parents also learn to track their own stress levels and develop their own capacity for emotional anchoring at home.

Listening to the Baby's Story

Having an empathic holding field creates a safe space in which babies are able to express their emotions and release tension. When we are present and deeply listening, babies make deep eye contact. If we are not listening with appropriate emotional resonance, or if we are misinterpreting the baby's needs (for example, mistaking memory crying for hunger or tiredness), or if we cannot tolerate the strong emotions being expressed, the baby will move out of contact by closing the eyes or turning away. Only then do we need to fear re-traumatizing the baby. Eye contact signifies trust, safety, and connection ("I am not alone with this experience"). This is congruent with the Polyvagal Theory of co-regulation through social engagement (Sanders & Thompson, 2022). As with human interaction at any age, when a baby's experience is empathically received, more of what has been held internally comes to the surface. Therefore, memory crying may initially intensify before reaching a *release apex* (Terry, 2022), after which the baby will begin to relax and settle. This can be especially challenging if the baby is initially dissociated, and so appears calm. These babies have given up on being met in their "story." As they sense that the conditions are now right for them to express their inner truth, they begin memory crying. It is important on these occasions to support parents to understand that this is a movement towards health, rather than away from it.

Memory crying is often accompanied by BBL.[3] We respond to these expressive signals from the baby by mirroring their emotional qualities and gestures. This will include vocal mirroring through empathic prosody and emotional attunement. The therapist needs to be able to attune to the baby's experience through their embodied experience so as to create the appropriate empathic resonance. This cannot be done simply as a technique. Permission is always sought from the parents before engaging with the child; they are informed that if they want to stop the session and take a break, they can do so at any time. Permission to engage is also sought from the baby. This is done non-verbally, but may also be articulated, so as to convey the request more directly, while also modeling this type of respectful approach to babies. Again, if babies are not willing to engage, they will turn away or break eye contact. Their "no" is respected. We may

2. It is important to differentiate between memory crying and crying associated with a present moment need, such as hunger, tiredness, discomfort etc. It is also vital to emphasize that while being given space to cry within an empathic relationship releases stress and tension, being left alone to cry builds stress and tension. This eventually becomes unbearable for the child, leading to resignation and dissociation.
3. I am especially indebted to Karlton Terry, director of the Institute of Pre and Perinatal Education, for deepening my understanding of how babies share their prenatal and birth experience in this way.

Babies are incredibly attuned to the relational field, and may only begin to engage with their story when the field feels clear enough to do so.

need to pay attention to something else, such as something happening with the parents, before we try to engage the baby again. Babies are incredibly attuned to the relational field, and may only begin to engage with their story when the field feels clear enough to do so.

A Clinical Example

Paulo is 10 months old. He has been crying intensely for about 20 minutes. I have been building a relationship with the mother and father by asking them what they want from the session, and explaining a little about how I work. They are both slightly dissociated, and not very engaged with Paulo. Their main concern is that Paulo suffered a lot of invasive interventions while in intensive care for several weeks after birth, which was an emergency caesarian performed as the labor was not progressing. As we are talking, Paulo begins to repeatedly touch certain places on his head. As IBT practitioners, we are familiar with how the cranium is molded during birth, and can identify *conjunct sites* and *conjunct pathways* (Terry, 2022). These are areas of compression caused by the baby's head being pressed against the mother's pelvic bones. By looking at the conjunct sites, I can tell that Paulo got stuck in the pelvic inlet, and that he was not able to descend into the mid-pelvis.

With permission, I begin to palpate these sites, with a very light touch. This amplifies the baby's birth story. Paulo pushes my hand away, which I let him do. This gives him agency and a sense of empowerment in relation to an experience in which he was stuck and helpless. After we repeat this a few times, he stops crying, gazes deeply into my eyes, and becomes very still. [4] He then invites me to engage with the conjunct sites over and over again for the next few minutes, by touching them and then pushing my hand away. It is clearly meaningful to him, and he becomes increasingly more confident in pushing me away. He creates more space, not letting me get anywhere near his head. At a certain point, I feel the quality of interaction has changed. It does not feel like it's about conjunct sites anymore. For many older children and adults who were born by caesarian section, the invading hand of the obstetrician often shows up as a theme. This may be acted out in play, represented in artwork, or simply described as an emergent image during a therapy session. Working in this field over time, practitioners become attuned to the subtleties of these themes, and may receive subliminal information through the felt sense of what is happening in the relational field. My sense now is that Paulo is defending against the invading hand of the obstetrician. Again, instead of being helpless, he is able to create a strong and confident boundary. I reflect this back to him: "Wow, you are really strong."

With this sense of empowerment, excitement begins to build in Paolo's pelvis and legs, which seem to come alive. He moves his legs and squeezes his thighs together, pushing his pelvis forward in rhythmic thrusts. Before this, he had seemed disconnected from his lower body. In the last stage of birth, as they emerge through the pelvic outlet, vaginally-born babies push with their feet, extending their legs to propel themselves forward and out into the world. Missing this formative stage of self-empowerment, many people born by caesarian section feel disconnected from the pelvis and legs. With this integration of his lower body with his upper body, Paulo relaxes. The baby's body language ceases. His focus is internal, as feels into the new possibilities he has embodied. There is a sense of stillness in the room. I now engage with his parents, who have themselves become more present and embodied through witnessing the pro-

4. Some babies will intensify their crying when the birth story is amplified; others will stop crying, and move into a more immediate level of exploring new possibilities.

cess, with a sense of pleasure and wonderment. We discuss some of the themes that may have played out in the session.

As well as birth themes, prenatal themes (such as the mother-prenate umbilical relationship) and cellular memories relating to conception and implantation may emerge in therapy sessions. Each of these stages has recognizable baby body language and associated themes. Session outcomes depend on many factors. These can include the number of sessions, which might range from one to ongoing sessions over weeks or months, and to what degree the therapist is able to engage with the parents. The two main limiting factors tend to be parental, especially maternal guilt experiences, such as the sense "I hurt my baby," and the paradigm shift many parents must make to be open to the possibility of their baby communicating in this way. Through the building of trust, with non-judgmental presence, and inviting the curiosity of parents in witnessing what often becomes self-evident in the session, most parents are able to engage with the process in an open and interested way. Outcomes include deeper bonding and empathy with the baby, reduced periods or complete cessation of memory crying, better sleep, less fractiousness, improved feeding, and greater parental confidence. Being aware of the lifelong consequences of early trauma, we may also assume that there are longer-term benefits in terms of emotional and somatic health. Future research would be valuable. All babies and their parents can benefit from IBT sessions. Although IBT practitioners work with trauma, this is not the sole focus of the work. The deeper intention is the focus on health, the integration of prenatal and birth experience, and the facilitation of deeper empathic connection between babies and their parents. Having IBT sessions as a routine part of postnatal care remains an aspiration for the future.

Summary

The idea of babies benefitting from therapy is a foreign concept for most people, especially when a psychotherapeutic component is introduced and the baby is invited to engage as an active participant. From birth onwards, babies are often objectified, and terms such as "fussy baby" diminish their subjective reality. This in itself is stressful, and can be traumatic for babies, adding another layer of stress to what may be an earlier birth or prenatal trauma. Engaging with babies in a meaningful way that acknowledges prenatal and birth memories, along with a recognition of how these may be communicated, can free both babies and their caregivers from ongoing feedback loops of stress and isolation. This creates an improved experience of parenting, in which what was experienced as dysfunctional can now be experienced as meaningful, and can be appropriately engaged. For babies, the process offers an opportunity to enjoy their formative years with more ease, and to resolve early traumas before they become entrenched as trauma-based behaviors later in life. There is still much work to do in this field in terms of research and education. As Reich described it more than half a century ago, we stand at the edge of "an ever-widening horizon of knowledge of the child's true nature" (Reich, 1983).

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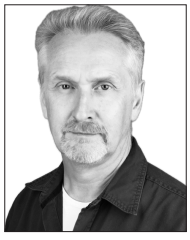

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Polyvagal Theory for Perinatal Trauma

A Mother-Son Somatic Case Study

Karen Roller

ABSTRACT

This mother-child case study explores somatic assessment and intervention approaches used with a mandated client whose history of perinatal trauma had not previously been reported. The clinician shares how they incorporated Judith Herman's tri-phasic model of trauma resolution and Stephen Porges's Polyvagal Theory to assess triggers for shutdown and rage in the dyad. Daniel Siegel's interpersonal neurobiology framework and somatic interventions used to complete thwarted survival reactions and enhance a needed sense of safety and connection are explained. Self-of-the-therapist reflections are incorporated.

Keywords: interpersonal neurobiology, polyvagal theory, perinatal trauma, somatic interventions

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The following case study is based on weekly sessions over three years with a minor client and mother who have been de-identified to protect their anonymity and confidentiality. It will follow the family's clinical presentation, our assessment and intervention process, termination, and aftercare. The case study explores how we applied Stephen Porges's polyvagal theory and Daniel Siegel's interpersonal neurobiology framework to their healing process in developmentally appropriate ways, using specific phrases and nonverbal somatic interventions guided by Judith Herman's tri-phasic model of trauma resolution. Themes related to in-utero experience, attachment, and ongoing developmental interruptions and betrayals are addressed throughout. Given the subject matter, the reader is encouraged to pause, down-regulate activation, and provide self-soothing at regular intervals.

> ***Had this family's perinatal trauma been known or shared at the time of referral, I would not have needed as much time to join, build rapport, and begin treatment planning.***

The identified client was an elementary-aged cis male of Native American and mestizo descent mandated to county mental health safety net services while going through the special education assessment process. His single mother was loving, supportive, exhausted, and out of ideas about how to help her son. They lived in Section 8 housing in

a gang-involved neighborhood, and there were no protected outdoor places near the apartment to play. This beautiful boy was the descendant of a famous warrior, and the family had great reason to be proud of their ancestry. The savvy reader will also surmise that horrific unresolved historical trauma was a part of the family's epigenetic lineage, which is still being enacted in the United States today.

This clinician spent three months joining and building rapport with mother and son while gathering standard assessment information, as well as observing the family together and the child at school both in the classroom and on the playground. Observation and play therapy assessment revealed a deep sense of loneliness in the child. His sand tray and imaginary worlds generally did not include any people but often revealed a desire for a familiar pet or animals that would befriend him. He would often just stand on the playground and watch the other children play. In the classroom, he was rarely approached by peers, and when he was, it appeared to be in order to tease him. The teacher did not attend to these exchanges unless or until he exploded in response. He appeared lost in the shuffle, consistently betrayed by an absence of attending to his needs by the authority figure in charge of his well-being at school.

He was having difficulties falling asleep, eating at school, and connecting with any potential social support due to overwhelming anxiety that would combust into anger. His learning difficulties were becoming more evident even as their causes were becoming less clear; the district-issued tests were unable to identify a typical learning disorder, so we took him to a neuropsychologist for assessment. The neuropsychologist was able to identify very complex processing difficulties correlated with evident kindling of activation; it was as if not knowing what was happening would set off a panic attack that required life-protecting rage to stay alive. Social ostracism was compounding due to developmental delays, thus increasing the gap between his size (larger than peers) and his behavior (increasingly delayed compared to peers). As the child grew taller than his mother, he became more difficult to contain. We met with a child psychiatrist to assess if medication might be necessary or helpful to keep the boy in school since his ongoing suspensions were not helping anyone.

The assessment process began with county-issued forms, but over time, it became clear that the basic questions were inadequate to uncover the myriad specific causes of what might be driving his self-protective anger. The author was enrolled in a somatic psychology doctoral program with pre-and-perinatal psychology coursework at the time and thus began incorporating gentle inquiry with the mother about earliest developmental themes. The intention was to assess what may have contributed to setting the child's temperamental baseline in this increasingly reactive state, in addition to the evident limitations placed on them by the circumstances of their lives and the historical losses their lineage had been forced to endure.

Meanwhile, individual and family play therapy sessions focused on co-regulation via child-led preferences in the play therapy office, at home, in school, and in the community, to build internal resources, assess for triggers, and provide mother and son with various tools to down-regulate activation. What follows is a brief summary of how we collectively descended the rungs of the polyvagal ladder to systematically assess and support each of the three branches of the polyvagal system: the social, sympathetic, and parasympathetic branches, for both mother and son. The author hopes this fleshes out how a clinician may apply polyvagal theory to assessment and help integrate all three branches in developmentally appropriate ways, particularly to support secure attachment in family systems. Structuring a trauma-informed treatment plan along this polyvagal ladder can ensure the clinician does not move too fast or too far from what the client system can integrate toward wholeness.

Overview of Polyvagal Theory and Interpersonal Neurobiology

Stephen Porges's polyvagal theory is increasingly lending hard science grounding to the softer science of therapeutic intervention, specifically for trauma resolution across the lifespan (Conroy & Perryman, 2022; Porges & Dana, 2018; Ryland et al., 2021). Research exploring the three branches of the vagus nerve system and its evolutionary capacities clarifies that the human brain, and the vagus nerve that sends and receives signals from it, mimic the evolutionary heritage of vertebrates (Porges & Dana, 2018). In other words, the newer

cortical architecture, or most recent social nervous system, that evolved in primates and belongs most fully to humans lies on top of the mammalian and reptilian sympathetic fight-or-flight layer, which ultimately wraps around the oldest history of our lower reptilian (indeed aquatic vertebrate) parasympathetic foundation at the deepest core of our brain and nervous system.

How the vagus nerve branches travel in and out of our body to our brain, and back out to their respective areas within the body, helps us assess our relative safety in the environment. When we perceive our setting and relationships as safe enough, all three branches of the autonomic nervous system work in balance and are optimally engaged to function biologically and emotionally. If we perceive the social or physical environment as too unsafe, we will do what we can with the social nervous system, our most recent evolutionary development, to navigate the situation in order to create safety. Some trauma literature calls this "please-and-appease," otherwise known as a "fawning" response (Aigner, 2022). We orient with our eyes, ears, facial muscles, and the tone of our voice to secure connection and help from the environment using processes that are largely subconscious, but can be manipulated intentionally with development and practice (Porges, 2003; Porges & Furman, 2011). Most talk therapy approaches focus on leveraging this newest branch of the autonomic nervous system. Babies are born hardwired to secure care from their assigned caregivers through the social nervous system, and healthy caregivers cannot help but respond positively to these bids for connection and support. When our bids for connection and support are received with appropriate attunement, we can stay engaged socially and function in emotional proximity (Porges & Dana, 2018).

If we cannot create emotional safety through the social engagement system, the next rung down the evolutionary ladder is sympathetic branch engagement; we will "fight or flee" to get back to safety (Bracha, 2004; Porges, 2009). Habitual fighting and fleeing tend to be assessed as anxiety and trauma disorders, impulse control disorders, and even certain personality disorders. However, sympathetic engagement within a healthy range is required to move us toward what we want and need, and away from what is dangerous, noxious, or unwanted. Exhibiting inappropriate sympathetic engagement when the situation does not warrant it by those with the power in the situation can often result in negative consequences (e.g., publicly losing one's temper at work, or with a police officer or teacher). On the other hand, insufficient sympathetic engagement can result in getting harmed in some situations where one could theoretically escape. One's developmental history will inform how this split-second decision-making is made; an armed special operations soldier will likely perceive the same situation differently than a small, neglected child and will engage accordingly. Babies are unable to fight or flee physically. Instead, this phase of evolutionary response will manifest as angry crying in protest. When they become too exhausted to maintain their elevated heart rate, they eventually collapse into despair (Goh, 2017; Porges & Furman, 2011).

If we assess that fight or flight is not available – and indeed, our socialization process tries to condition us away from knee-jerk or aggressive reactions as much as possible – we may descend another rung on the ladder to parasympathetic "freeze or flop" (Beaudoin & Maclennan, 2021; Swain & Brahimi, 2022). Getting stuck in this state is not uncommon in the case of PTSD and depressive disorders (Cummings, 2021).

When the parasympathetic branch of the ANS is balanced, we can restore our bodies and minds from recent stress through the "rest-and-digest" functions of the body that flush out inflammation from cortisol and catecholamines. We can sleep without hypervigilance, and our food intake and elimination become regular and healthy. Parasympathetic imbalance shows up as interruptions to biological processes, such as lack of appetite, sleep disturbances, low heart rate, flat affect, and limited facial expression. In the most catatonic state, neurophysiological shock can even lead to death in the imbalanced parasympathetic state (Porges, 2014; Porges & Dana, 2018).

Our clients will embody their movement up and down this ladder as they cope with stressors. Our treatment and intervention plans will be well-served by knowing how to help bring balance to each rung, noticing where our clients get stuck, and creating interventions that help facilitate their movement up and down the ladder as necessary and appropriate.

This case study will reference the different branches of the autonomic nervous system (ANS) in de-

scending order, and outline how assessment and intervention were performed at each rung.

Judith Herman's tri-phasic trauma resolution model (2016) nicely aligns conceptually with following these ladder rungs. The priority in each session is safety and stabilization; we only move toward a digestible amount of trauma memory processing after we have established safety and stabilization. After each dose of trauma discharge, we facilitate reconnection and reorientation to self, place, skills of daily living, and social support (Herman, 2016; Zaleski et al., 2016).

Social Nervous System Branch of ANS

Due to his developmental delays, the son was amenable to imaginal play typical of much younger children. Thus, most of our assessment and early intervention individual work was focused on integrating unmet needs through imaginal play, and then bringing what worked to role model and practice with his mom so that she could fulfill the needs and strengthen their attachment via theraplay-informed interventions (Money et al., 2021; Wettig et al., 2011). My goal was to identify the strategies this family needed to fulfill their attachment and regulation needs to enable them to achieve optimal functioning in all areas of their life. I gave mom respite by taking her child for field-based sessions for two to three hours per week, followed by family therapy to integrate what was learned in the individual play therapy.

To support Judith Herman's first phase of trauma resolution, safety, and stabilization, I would often step into the boy's wished-for animal friends, and give them voice through sand play or puppets, anticipating what the child wanted to hear from the animal in a loving and playful tone, modeled loosely on kind Sesame Street characters. Following Stephen Porges's recommendations for voice modulation to signal safety to the social nervous system (Porges & Carter, 2017), I was mindful of using a soft and soothing voice, saying little, always signaling praise and connection, and being invitational without conveying pressure to respond. Some of the phrases I softly and playfully used to stabilize the boy's nervous system in the perception of safety once we had transitioned into play included: "Oh, I finally get to see you today…I've been waiting all day for you!"; "I can't wait to hear all about your day"; "I was thinking all day about what would be fun when we finally get to play together"; "Where do you want to go today?"; and, once we had gone somewhere for a while in the imaginal world, or out in the real world, "Let's have snacks together…what sounds yummy to you?" In family therapy, the mother initially had difficulty stepping out of her provider and caregiver role into a playmate role. However, once she saw how her child responded to the playful voice and settled into his skin, she became more willing to be disinhibited with him this way. This aided the family therapy so that the son would become engaged and stay interested in the emotional processing that later followed. Just as importantly, it also brought a joyful affect to mother and son as they both worked to rinse the residue of daily stress from their systems, and connected with a light-hearted tone.

I also identified an appropriate peer client at school to facilitate dyad play with the son so he had an ally on the playground. This peer did not need to be superior, and they were able to cultivate a friendship that they both truly enjoyed. Therefore, being pulled from unpreferred tasks for dyad play therapy was mutually enjoyable, and safety on the playground increased through allyship. To anchor the social support they had crafted together, I brought in preferred materials (Legos) for them to build together and show off their completed models, which they then used for show-and-tell. We did some somatic explorations while they played: "Wow, how does your belly feel as you put this complicated part together and see it working?!"; "Ooooh, I see how patient you are being by taking a pause and a big exhale on that hard part; way to go!"; "I love how you are each helping each other find the pieces you need to do your parts together; how does that feel in your heart knowing you are such helpful friends to each other?" I also made sure to give them time together uninterrupted on the playground equipment to release any stress that might have been brought up through emotional proximity before returning to class. This friendship developed into a playdate relationship after school over time.

Sympathetic Branch of ANS

As trust and safety grew over months, this clinician moved from grounding in safety and stabilization toward initial forays into Herman's second phase: trauma memory processing. While still emphasiz-

ing safety and stabilization, I gently probed themes of loss and challenge evident in the family history. Emphasizing pride in the son's continued effort in all areas of his life, I also began to inquire what he wished were easier. Using play to draw out wishes about his ideal friends, ideal teacher, and an ideal place to be free with his mom and brother, we invited the embodied experience of confidence, joy, and connection. We found ways for him to move toward those circumstances where possible. We then anchored these positive feelings with various activities to cross the midline rhythmically using Dennison's Brain Gym (Dennison & Dennison, 1986; Nussbaum, 2010) and EMDR principles (Beckley-Forest & Monaco, 2020): playing catch, walking while looking for interesting sticks and rocks, and engaging in balancing challenges on the playground.

Aside from his dyad play therapy partner, I began taking the son to a horsemanship therapy center where I volunteered. Bringing carrots and earning the privilege to enter the stalls because he followed the rules, I used equine-facilitated therapy to help regulate and soothe this sweet boy in proximity to large and imposing animals with whom he wished to have ongoing contact. While he never decided he wanted to ride, he did love getting to feed and pet the horses. To see his face light up when they clearly recognized him, whinnied to greet him, moved toward him, gently took the carrot from him, and let him hug them, was exquisite. Incorporating cross-midline movements, we would rhythmically groom and pet the horses and watch them run in circles in the arena. We also incorporated grounding sensory awareness explorations, such as deeply smelling the horses' skin, placing our ears on the barrel of their chest and belly to listen to their heartbeat and digestion, and sharing how it felt to brush their tail and mane compared to their body.

These mostly nonverbal sessions were a perfect reward for the boy moving toward what he wanted, taking risks in play to show and tell me what he hoped for, and then having a direct lived experience with it in his responsible assertion of will. He was naturally calm and alert around these large animals, as his survival instincts told him to pay attention. However, having a responsive guide who had built trust with him over time showed him how to approach and respect his boundaries around not wanting more contact than petting and feeding. It empowered his sympathetic nervous system to approach the animals with increasing confidence, knowing his safety and comfort would be honored and prioritized. He began to feel very proud of himself over time, which showed in how he talked about helping the horses to his classmates, teacher at school, and his mother. She eventually assented to joining him with the horses a few times, and she began to shift from parasympathetic imbalance in that intervention. In family equine-facilitated therapy sessions, we began discussing how the family lineage had a great and storied relationship with horses as part of their survivance from white invaders and how the partnership between their ancestors and these animals continued to live in their bodies. Calling in the ancestors in this way was intentionally used to build more resourcing, support, pride, and connection. It also clearly moved his mother to feel more supported.

Parasympathetic Branch of ANS

Once significant rapport had been built, and the mother's parasympathetic shutdown began to unfreeze, she shared privately about the boy's father leaving them when he learned about the pregnancy. She did not believe there was anything traumatic about this, although she knew her child was sad about not having a dad. Because there seemed to be some dismissal, and perhaps numbing, about this loss, I took my time unpeeling the layers and expected that more would reveal itself over time as trust and safety grew. I expanded the empathic space for the mom to process each time she took the risk to share about an abandonment or betrayal, naming the loss and normalizing the need for consistent and reliable support. She was initially understandably guarded about these vulnerable themes, and it was clear I would need to be very patient, touching on each wound to help the family system process each one in its own time.

Mom's parasympathetic coping showed up in a collapsed acceptance of the series of abandonments that led to her single motherhood of two children (one grown) by different fathers, having to live in Section 8 housing where drive-by shootings happened not infrequently, and losing a series of jobs due to her youngest child's ongoing suspensions from school. She was then on Social Security and losing hope that she would be able to hold a job due to her child's special needs, which made it difficult for her to show up for work reliably. She wanted to

return to work badly for social support and financial independence but had no energy left to "fight" or maneuver for this eventuality. She was still functioning vegetatively, but her understandable fear for her child's future and her personal isolation appeared to be pulling her deeper down into depressive stillness, protection of her vital organs, avoidance of demands on her system by not taking her son out into the community, and not seeking financial support from the boy's father. She appeared resigned to her fate, with limited available affective and behavioral options.

Her flatness and detachment were understandable. They also impacted her ability to engage her child in the ways he consistently needed. It was unclear to me how early in his life this dynamic had begun, but something shifted in her once we began our family sessions with the horses. She began to negotiate with her landlord to see if they could adopt a cat as comfort for them both, and she hoped that having a pet who reliably soothed her son could help stabilize his moods and perhaps reduce the suspensions that made it impossible for her to keep a job.

Moving Up and Down the Polyvagal Ladder in a Session

In retrospect, she probably should not have said anything to her son about negotiating to have a pet in the apartment. His hopes were pinned to an outcome beyond their control. Ultimately, she was told they would not be allowed to have any pets. Her fear of her son's reaction to this resulted in her asking that this news be delivered in the relative containment of the psychiatrist's office with me present. I believe she wanted multiple supporting witnesses to help contain her son's rage and have insight into her difficulties reconnecting him to the surrounding environment when he became enraged.

Though the adults had spoken ahead of time and prepared for this in-office delivery of bad news, we could not fully prepare for how the child reacted when he learned he would not be getting his deep dream fulfilled. He rose from his seat in the psychiatrist's office, leaned over his mother to scream at her, and stormed out down the hallway. He looked for an empty office, entered, slammed the door, and began throwing everything in it against the walls. Sandtray, computer monitor, and bookshelves were lifted and tossed. Mother and child went from socially engaged to the son in fight-or-flight, while she was mostly frozen in terror. A show of force naturally arose in the office, and my supervisor whispered, "This is why we have insurance." We let the tantrum run its course and took our time to re-approach the child in a non-shaming way to soothe him for the deep grief that had overtaken him. Something clicked for me while I saw the pattern unfold.

Perinatal Assessment

After the crisis had passed, I reassured the mother that we would meet individually before I had more time with her son and with them as a family. I then reflected on the pattern and processed it with my supervisor to prepare for my meeting with her. In that next meeting, I asked permission to explore her pregnancy and birth further.

Through gentle inquiry, she was able to tell me that in addition to her partner leaving her when she shared news of her pregnancy, she and this son had a traumatic birth. In addition to being stressed and depressed throughout her pregnancy, she was alone in the hospital through a 36-hour labor before a cesarean section was ultimately performed. When the doctor went to pull the baby out, he could not because the umbilical cord was only four inches long. Therefore, mom and baby had labored for a full day and a half, with no hope of the baby giving birth naturally without mom likely dying or needing extensive surgery to repair the blood loss – though this was not known until the emergency surgery was performed. The doctor shared that there had likely been oxygen loss to the son's brain due to this prolonged distress.

Learning this piece of the family's trauma history, I was able to intentionally create a treatment plan for the repair of the overwhelm between them and for the son as he navigated needs, desires, and completions of cycles in the world. We continued with the same forms of individual, family, and dyad play, equine-facilitated therapy, rhythmic midline movements, and sensory awareness. However, we began to focus on trauma memory processing by breaking down and taking in small bites the steps necessary to move toward a goal, staying deeply connected with the fear and frustration that would get activated, and pausing to reconnect over and over. We processed grief over goals that could

not be achieved, and looked for alternate ways to meet the needs for repair.

In following Herman's tri-phasic model and setting up a container for traumatic material to arise with support, I learned that the mother and son's nervous systems were getting stuck in different branches of the ANS. The mother's abandonment by the boy's father could rightly be defined, and may have been read, as a betrayal trauma by both of them. This understandably led to depressed flattening and exhaustion, falling back into survival instincts that slow the heart rate and reduce blood flow to preserve life and limb.

Having the fight knocked out of mom is something her in-utero son could probably sense, even though he likely could not make rational meaning out of the feeling. The absence of meaningful, ongoing, logistical and emotional support throughout the pregnancy resulted in a host of negative feelings, all rooted in fear. Furthermore, this little fetus was not free to move about and reorient himself, explore, and avoid unwanted stimuli within the tight radius of a four-inch umbilical cord. He was unnaturally bound to a particular location, and as he grew bigger, he was forced to stay in a particular orientation while his world shrank around him. The sense of helplessness and vulnerability many fetuses feel was probably exaggerated for this little one.

Then, through this stressful and scary developmental period, though certainly tinged with hope, the birthing process was so different with this son than it had been with the mother's firstborn. Having no personal support, and no loved ones present, she had to depend on professionals to make all the decisions as her labor carried on, and her baby was stuck in distress. Depressed birthing mothers have a more challenging time asserting their needs and preferences in childbirth (Dalke et al., 2016; Patel & Wisner, 2011; Vigod et al., 2016), and this mother said she did not feel she had the right to ask for help. The absence of a reliable support system fostered a passive dependence on those assigned to assist her during this highly demanding process.

It is easy to imagine that the baby felt the impact of this abandonment. Between his ongoing inability to progress toward the cervix and the lack of support for his mother to feel safe in childbirth, development, and birth were more death-defying for this little one than for a baby with a full-length umbilical cord. While it cannot be known precisely how much frustration was built into the limitation of movement as the pregnancy progressed, nor how much oxygen loss he may have suffered during this overwhelming fight to be born, neuropsychological tests suggested sustained brain damage that created panic at the onset of confusion.

Trauma Treatment

This confusion and growing panic would, understandably, arise in novel circumstances and in the face of academic demands and social rejection. We thus worked on expanding pattern recognition of developmental tasks to approach them in a regulated fashion over and over. Following the wisdom of Bruce Perry's Neurosequential Model of Therapeutics (NMT) (Barfield et al., 2012; Hambrick et al., 2018; Perry, 2019), I used repetition to calm and regulate the boy's brain and nervous system by arranging predictable session times, start and finish rituals, and choice points within the preferred range of activities for each interaction. I also worked with his school staff to break down new tasks following the principles of NMT and to prioritize scaffolding social support in the classroom so it could be carried out to the playground. I provided the school staff with psychoeducation about the social nervous system and how to minimize circumstances that could lead to self-protective rage activated by the sympathetic nervous system. I highlighted circumstances that might lead to parasympathetic "freezing" and ways to gently join and engage the child smoothly so that he could slowly re-engage toward balance in all three branches of his ANS. We co-developed a "sensory diet" of regulating embodied activities, which we added to a picture card that the boy could point to as needed throughout the school day. This helped empower him to reveal his needs and have them met promptly when he was away from his mom (Pingale et al., 2019).

In family therapy, we increasingly focused on the grief and loss that mother and son were learning to live with. After joining the few equine therapy sessions with her son, the mother moved out of her protective flatness of affect and predominantly parasympathetic presentation. She began to show more balance in her sympathetic nervous system, as evidenced by more access to her emotional pain

and process. As she shared her hopes and wishes for her son, she was also able to say she was sorry for how hard things were for them, and to show her grief in an emotionally present way. Her son clearly felt very connected to her once they began talking this honestly about their feelings; he would lean into his mom, give his weight over to her, and let her hold him while she warmly stroked his arm and hair. This emotional sharing and physical co-regulation returned them to their social nervous system. We anchored these family sessions with adventure and experiential exercises to expand their relational repertoire of new challenges they could take on together.

Due to the themes of loss beyond the family's control, termination was carried out with great care and intention and included the entire interdisciplinary care team. We titrated sessions down slowly to assess the boy's response to the reduced frequency. We scaffolded more community support through sponsorship of the YMCA as a healthy outlet for the family. We also established an agreement with the horsemanship center that the family could continue coming to feed and groom the horses on their own schedule. Follow-up calls with mom after termination clarified that the dyad partner playdates were continuing, so social support had stabilized, and that she and her son were taking advantage of both the YMCA membership and horsemanship center visits. Finally, she was able to obtain and keep a part-time job, which increased her financial independence and social support. Her son stabilized at school and was able to keep progressing with special education support.

Conclusion

Had this family's perinatal trauma been known or shared at the time of referral, I would not have needed as much time to join, build rapport, and begin treatment planning. I share this case because it is human nature to block trauma. Clinicians often need time to prove our embodied safety for and with our clients, especially those sent to us somewhat against their will. We need to take our time to become reliable co-regulators of their ANS, to learn of the multiple stressors they must cope with, and to hold that context empathically so they can begin to explore it in their own time. We also need to appreciate their incredible resilience and history of strength, however they survived to be here today, and find culturally responsive ways to celebrate and connect to that resilience so that it becomes a conscious resource. As their embodied expression of stress and coping is revealed, we may witness new patterns in contrast to patterns that seem to emerge from the youngest, most fragile moments of their lives. As we prove our trustworthiness to bear witness and soothe their most current fears and self-protective actions, they may slowly allow us to descend the polyvagal ladder with them to the core wounds. Each individual and family needs us to follow their pace and find ways to build their regulatory capacity while unpacking what was overwhelming at any point in their development. Learning how to work with the body's survival responses and calm them requires reliable, culturally responsive, developmentally appropriate support, and working with the support system and community resources as available.

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Her Body Cannot Tell A Lie

Experiencing Emotional Somatic Awareness Through The Arts

Ellen Gayda

ABSTRACT

Her Body Cannot Tell A Lie is a creative spoken word piece that reveals the anatomy of emotions through the embodied language of somatic expression. The inspiration came through me to give voice to the wide range of emotional experiences that are archived within the feminine body. Having supported women professionally for over forty years, I have been a witness to the feminine journeys they have taken to birth into consciousness their substantive truth. Giving a language and platform to this intimate healing process is my tribute to them. Pulling back the veil to demonstrate the emotional articulation of the feminine, through the lens of the multilayered wisdom of somatic psychology and body psychotherapy, required a creative presentation in a live arts venue. Through spoken word verse, and movement with music, their untold stories could be experienced and received by a wide audience.

Keywords: Her Body Cannot Tell A Lie, creative spoken word, embodied language archived within the feminine body, emotional articulation, live arts, body-based wisdom, feminine journey

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> ***Women in the audience cried, sharing that they felt the unrevealed stories buried deep within their own body consciousness becoming known.***

The language of this spoken poetic verse introduces the audience in an unfamiliar linguistic realm, much like a traveler entering foreign territory. Yet within the fertile ground of body wisdom and conscious awareness, one can recognize, through felt meaning, a resonance that feels familiar. Utilizing the emotional somatic framework of body psychotherapy in the literary and performing arts highlights the significant role emotions play in shaping our ability to feel safe in our bodies and in the world. The necessity to awaken our attention to communication with emotions held hostage within the fibers of our soul body calls for a holistic approach to healing. Experiencing the capacity to embody our truth with freedom of expression and comfort that cultivates health requires the skills found in integrative somatic psychotherapies. My desire to teach about healing through the creative process, I chose is an effort to direct awareness toward the essential relationship we must cultivate with our bodies in order to fully inhabit them. The invitation to healing and renewal is al-

ways a cyclical journey in learning to approach our vulnerabilities with soft eyes. Aspects of the emotional soul and body that have been neglected, repressed, abandoned, or minimized through actions and judgments that render us powerless have left wounds of trauma awaiting healing through the healthy forces of love, will, and forgiveness. These healing impulses are part of our birthright. This body of creative work reminds us that there is no final destination, only new beginnings.

In the poetic expression of *Her Body Cannot Tell A Lie*, I have chosen to reveal an interchangeable articulation of self – expressing self that highlights the feminine body as the archetype of embodiment. She holds then pours empty, in accordance with the monthly moon and womb of her anatomy for decades on end. Her emotional body flows with blood and tears that keep her close to nature and the cosmos. She takes care of business first, then, with any luck, attends to herself. Finding room for her to embrace self-exploration can seem like a luxury for a good portion of a woman's life. Prioritizing the needs that emerge within the depths of her consciousness becomes an invitation for her to review, clear, heal, and claim what belongs to her and what does not. Then, dwelling within herself, she may hear her own true voice that can help her navigate through life choices. Learning to trust her instincts and listen to whispers of her intuitions will support her in staying grounded. Her healing impulses will call her to turn toward herself. Then she begins her journey. She has an emotional intelligence that knows she will need the support of her soul doula. The body psychotherapist that is present to her will be a constant reminder to turn toward herself with the attention required for constant personal connection. Remaining receptive, she learns to nourish herself as well as find good company that supports her. With measured steps and guided help, her desire to know herself strengthens so she can heal. When she is ready to reclaim herself and her truth, she may thrive. This journey is her conscious birth.

The Therapeutic Value of a Creative Presentation

This word verse, originally created for spoken word delivery, was accompanied by movement and original music. It was first presented in 2009 at The Philadelphia Live Arts/ Fringe Festival to an audience of 180 men and women over two days. Following the performances, an invitation was extended to remain for an open forum. Many men expressed gratitude for the impactful experiential education they received, which fostered greater emotional understanding and awareness toward their mothers, sisters, girlfriends, wives, friends, and peers. Men candidly shared their selective awareness of the vulnerabilities and challenges women face in achieving physical and emotional safety. The creative delivery aimed to awaken men to a newly realized understanding of the wounding experiences that can affect the feminine soul.

Women in the audience cried, sharing that they felt the unrevealed stories buried deep within their own body consciousness becoming known. Naming the invisible and hearing other women share similar experiences enabled some to speak for the first time. They discussed their self-awareness related to the armored somatic postures they had developed in response to vulnerabilities they felt but had never addressed or been aware of before that evening. The effort to produce a presentation that interwove the healing and creative arts achieved the desired result of initiating self-reflection toward their relationship with their bodies. A new understanding emerged of being living holistic organisms always in communication. In men, this stimulated a new and deeper understanding of the feminine as a living vessel encompassing her worlds in both body and soul. The cross-pollination of conversations between men and women was a fruitful gift, providing a rich, sensitive, and honest opportunity for authentic sharing. It was a perfect introduction to the world of somatic psychology.

I have also explored *Her Body Cannot Tell A Lie* in various healing contexts, adapting the format as needed for presentations. I have altered pronouns for equal gender relevance and participation. During a mixed-gender weeklong Gestalt workshop at the Esalen Institute, I served as an accompanying facilitator alongside master therapist Mariah Gladis, and introduced the verse as an opening experiential exercise focused on body awareness and emotional inhabitation.

In a women's wisdom workshop, the spoken word verse awakened felt bodily awareness, while the invited guest, Continuum teacher, dancer, and body psychotherapist Ellen Cohen, responded with spontaneous movement as an interlocutor. Women connected with their emotional content

and acquired a greater capacity for self-reflection on the relationships they had adopted regarding their body image issues. It opened the opportunity to examine the degree to which they had objectified themselves. The experience of enhanced self-awareness and sensitivity fostered a greater openness to explore embodiment while reclaiming and accepting themselves as women moving toward wholeness. This creative, curative opportunity held women safely in a womb of emerging body wisdom, fostering shared processing and a language of meaning that encouraged them to embrace their emotional capabilities and embody their feminine selves.

Final Thoughts

My intention is to offer a reflection on the value of combining creative arts with healing arts as a viable form of communication. This approach can move the process of somatic awareness out from behind closed therapeutic doors to reach a larger audience. The educational awareness gained by introducing a complex inner territory through a simpler, more compelling presentation can help demystify the profession for the mainstream, while expanding the acceptance of body-based wisdom as an essential resource in the pursuit of self-healing and integrated health.

Her Body Can Not Tell A Lie

by Ellen Gayda

Part 1

Woman, nature's walking wonder
Card carrying holder of the whole human race!

You, who took the risk to bite the apple that bled the juices
From the fruit of the Mother onto your precious body.
You, who took the risk to bite the apple that bled the juices
from your Mother became a Lover and a Mother to all the human race.

Little did You know.
That you surrendered your soft clay body to the mystery
That shapes the power that flows inside you
Like the ocean shifts the sands.

Little did you Know.
That you who bit the apple surrendered to the mystery
That shapes your body with hills, valleys and
Shifts your soul with waters that flow
from womb to man.

Little did you know.
That you would carry in your dark eternal soul
Those you've loved, those who've died
Those who left you incomplete and
Those you caught between your sheets
In a web of truths and lies!

Little did you know.
That you would carry a silent vault in your womb
Like a tomb, the night your innocence was stolen
And all your stars would turn to scars.

Little did you know.
When sex became a barter for another night of rest
Then love walked out her door and sex walked incognito.
Little did you know.

Woman, within your belly and your breast you carry
Pulsing, pounding, breathing beats of love that never dies
Pulsing, pounding breathing beats of love that never hides
Within your belly and your breast, a life that grows inside
A life that couldn't thrive, a love that you denied
Within your belly and your breast
You gave, you gave, you gave your best
To love that never dies, life that never thrived
Love you had denied, life that grows inside,
Within your belly and your breast, you gave pulsing pounding,
breathing beats, You gave yet carry them all.

You shoulder weight like a soldier would
Then shrug, like Atlas could or should
Shunning, quivering, shivering then at
The thought of bearing more.
Shouldering like a soldier would
Squared off and center.
Shrugging, shunning, quivering, shivering,
Sighing, at the thought of more.
Shouldering like a soldier would
Shrugging, shunning, quivering, shivering,
Sighing, at the thought of more.

So, armored you withstand
With pointy elbows sharp as spears, guarding edges so none come near
As your gut begins to kNOt.
Pointy elbows sharp as spears, guarding edges so none get near
Knowing another NO is coming, knowing another NO is coming

As your gut begins to knot knowing another know is coming.
Pointy elbows sharp as spears, knowing another no is coming.

Then your heart sinks and your knees fail, as
You just can't stand it anymore.
Then your heart sinks and your knees fail, at
The loss of what you stood for.
Sinking heart of feelings, falling to your knees
Fumbling, faltering, failing feelings
Sinking to your knees, as
You just can't stand it any longer! Whatever, did you stand for? as
You can't stand the feeling of no one standing with you.
Sinking feelings, falling to your knees,
Whatever did you stand on when you can't find your ground?
Sinking heart of feelings who ever understood you
When you can't stand yourself?

Clamming up you shut down, shut up and harden to your world
Hard pressed, you clam up, shut down, shut off your feelings from your world.
Then, you shut up, clamp down, hold in, hold on, hold off and
hold back with fisted hands that speak "GO POUND SAND"!
Hard as a shell you clam up, shut down, shut up and shut off
The hardness in your world.

Then kneeling, bowing, praying,
You begin to feel the need.
You begin to feel the need
When kneeling, bowing, praying.
Deep down the need in you begins to feel again,
Kneeling, bowing, praying the need for you to understand.
Kneeling, bowing, praying the need in you is understood.
Kneeling, bowing, praying you need to open you again
Kneeling, bowing, praying you release to open up
Your outer shell.

Then slowly, s l o w l y your breath returns and
Eyes find you in search of a Higher Ground.
In Search of your Higher Ground, a ground that under-stands you.
In search of your Higher Ground a ground that lets you feel
Your worth in weight, word and deed.
In search of your Higher Ground, that lets you feel your worth
In weight, word and deed.

Then digging in with heels then soul,
You find the ground you stand for.
Then digging in with weighted worth

Your legs do push, then P-u-l-l you up
Right, onto a higher ground, up – right onto your Higher Ground.
With weighty worth your legs do push then pull you upright
Onto your Higher Ground.
Only to see life looking at you, straight in the eye again.
To see life looking at you, straight in the eye again.
Then, looking Life straight in the eye
You catch yourself a wink!

Ah, you breathe in deeply, a Yes to Life again!
Ah, your breathing deepens as Spirit stirs within your spine.
Stirring Spirit spins your spine, breathing, moving cobra energy!
Cobra Spirit stirs your spine rising Kundalini.
Kundalini spins then lifts stirring spine awake!
Kundalini stirs and spins lifting spinning cobra spine
Lifting, turning, breathing spine
Your Spirit begins to rise! Your Spirit begins to fly!
Only to find your wings in motion to feel your wings in motion!
Lifting, gliding, spiraling tall, the flight of the Phoenix rising.
Only to find your wings in motion Lifting, gliding, spiraling tall
The flight of your Phoenix rising!
Onto your Higher Ground, the flight of Your Phoenix rising,
Leading, gliding, lifting you tall toward heaven's earthen gate.

Releasing old, Unleashing new, Your Spirit soars again!

■ ■ ■

Pause – Intermission Breathe Feel Your Body Feel your Feelings

■ ■ ■

Part 2

You're back again Feminine Warrior,
Backing yourself up, not backing down nor backing off or backing out
Fighting backlash and back stabbing.
Maybe you're all right maybe you're alright and still, how are you left?
Until, you hear "I've got your back" just how are you left, Woman Warrior?

You're back again, Sensual Mama,
Striding, strutting, swaying your stuff
Like the ocean who rolls her waves,
Like the ocean who rolls her waves.

You're back again, Sexy Woman!
In a world that you straddle with your hips, and your thighs
That shake, rattle and roll
Swaying and rocking, striding and straddling, shaking your rattle that rolls.

You're back again, Loving Lady,
With your lips curled like the crescent moon,
You smile then joke, then tease with laughter as kisses
Find tongue, with tongue in cheek.

You're back again, Earthen Goddess,
Heartwarming Venus, with stars in your eyes
that love to pour your milky ways
Nourishing souls that thirst to grow.

You're back again, Spiritual Sister
Disarming yourself from spears and fears that interfere
With your spirit soaring and
Your spine stretching.

You're back again Sister,
Stretching your spine that L o n g s to be longer and
Belong to a world full of spirit.
Longing to be longer and belong to a world
That no longer remembers.
Longing to belong to a world that longs
To remember the meaning of belonging
To something more than yourself.
Longing to belong to a world that remembers
The meaning of belonging
To something more than yourself.

Girl, sometimes, you swallow hard to digest and make sense
Of a world that lacks nourishment and soul.
You swallow hard, to accept the rejects
To find the silver lining in spoon fed arrogance
That never came across the taste of Soul food!
You swallow hard to ingest what never made sense
What burns you up and taste like heartburn.
You chew to dissolve, but still choke at resolve,
What Eats at You? You chew to dissolve then

Choke at resolve, what is eating you?
Looking to find the silver lining
In spoon fed arrogance that never came across
The taste of soul food.
You swallow hard. What is it that you stomach? Truth or Consequence?
What is it that you stomach, Truth or Consequences?

Indigestion from suppression, or concession or repression either way,
Jaw grinder, ball breaker, Either way,
You grin, you bear, either way, you fume, then smoke,
Either way, you whine, then piss,
You sleep walk then day dream, with night sweats and night mares
That beg forgiving, for getting or both. Either way.

Then, life circumstances take you on a ride,
Out for a spin, around another bend,
Gives you another turn, turns you around,
Turns you on, turns you off, circumscribes you,
Then circumvents you
Until you find yourself again all alone.
Until, you find yourself again all alone.

Then, circling, circling, circling yourself
In search for your center you spiral downward.
Circling, circling yourself in search for your center you spiral
In circles, circling, circling, circling yourself in search
Of yourself, you spiral down the rabbit hole.

Gripping to grab then grasping to gain
Your hands then fingers strain in vain
Not to lose contact.
Gripping, grabbing, grasping, straining
Down the rabbit hole you go.
Gripping, grabbing, grasping, straining
Down the rabbit hole you go.
Straining in vain, you lose contact with
A world that is too hard to hold.
Strained then restraining you lose contact
With a world too hard and too cold.
You grip, then grasp, then gasp
Falling down the rabbit hole.
Leaving the world as you knew it behind
Leaving the world you know behind.

Only to find yourself landing, by the seat of your pants.
To find yourself landing by the seat of your pants
In your darkness, in your starkness, in the womb of your soul.
Only to find yourself landing by the seat of your pants, in darkness,
In starkness, in the womb of your soul.
Leaving the world as you knew it behind.

Then like a fiddlehead fern you tuck in shade,
Curl yourself back into your little girl hiding,
The little girl who hides, cries and lies
With tears about fears that have no name
But lots of blame and full of shame.
Hiding, crying, lying you curl yourself back
Like a fiddlehead fern, into your little girl dying
From tears and fears that have no name
Yet full of blame and lots of shame.

Until you surrender the moments free
Until you surrender with movements that be
Until you surrender your heart to heal
Until you surrender to a peace you feel
That silently soothes your heavy brow
Then rocks you in your dreams.
The dream of the mother that breathes you alive
In the cradled bosom of love she provides.

Then, you awake once more to see
Today, in a way it's a new day.
Face another day, pace another night
A new day, in a new way, given another challenge
Take another choice, a new day with a new way.
Receive another gain, deceived at another cost
A new day, in a new way.
Bear another life, bury another loss
It's a new day, in a new way.
always turning, then returning Woman
always turning, then returning Woman
always turning, then returning Woman
every day, easy come, easy go
every day, you walk your talk
every day, you give your word
every day, your body says the word
every day, you are your BodyWord.

Ellen Gayda *is an intuitive healer, licensed bodyworker, certified Gestalt practitioner, and co–founder of three wellness centers. Her thesis in 1973 under Dr. Frank Barron at UCSC contributed an original mind map for the assimilation of research data in the field of humanistic psychology. Immersed in meditation, yoga, and naturopathy as teaching self-healing tools, her interdisciplinary approaches have led her "on a road less traveled." BodyWord® is her creative therapeutic process. She studied with Hungarian philosopher Georg Kuhlewind, pursued a ten-year study of Zen mindfulness through Urasenke / La Salle School of Chado, and authored Her Body Cannot Tell A Lie. For 15 years, she facilitated a women's wisdom circle that supported perimenopausal transition. She has presented at USABP national conferences, the annual Renfrew Center Conference, and to doctoral students in psychology at the Philadelphia College of Osteopathic Medicine. She maintains a private practice in Philadelphia.*

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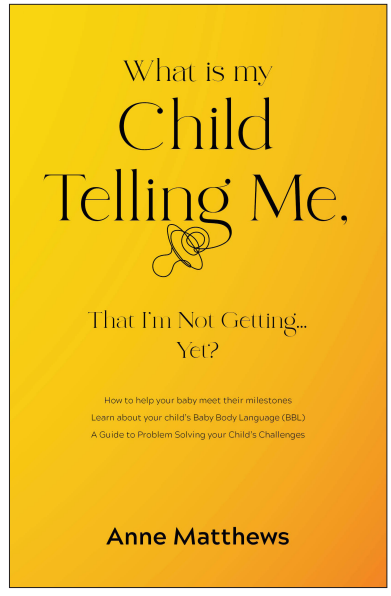
AUTHOR REVIEW

What is My Child Telling Me, That I'm Not Getting… Yet?

Anne Matthews



Introduction to the Journey of Understanding

Birth is a universal experience, and parenting is one of life's most privileged journeys, filled with moments of joy, learning, and challenges. In my book, *What is My Child Telling Me, That I'm Not Getting… Yet?* I offer an insightful guide to help parents better understand their babies and young children by focusing on what I call Baby Body Language, reflecting my expertise in the somatic disciplines. I guide readers through childhood challenges by decoding a child's Baby Body Language. This approach helps address underlying issues affecting a child's development, and offers parents an enlightening opportunity to read and interpret a baby's preverbal communication cues. With over four decades of experience working with families, I blend personal anecdotes, clinical insights, and practical exercises to offer a powerful approach to parenting. The focus is on fostering parental self-awareness, nurturing compassion and empathy, and emphasizing the crucial role that pre- and perinatal experiences play in shaping a child's development.

The book is grounded in the belief that, by closely observing children's non-verbal cues and behaviors, parents can uncover underlying issues that may be impacting their development, emotions, and overall wellbeing. The book serves not only as a guide for parents, but also as a companion on the journey of self-discovery and healing for both the growing parent and child.

The Essence of Compassion and Empathy in Parenting

The core of my approach to wholesome parenting centers on nurturing compassion and empathy. I emphasize that true understanding and connection with a child begins with the parent's ability to be present and aware of their own emotions, thoughts, and physical sensations as they adapt to moment-to-moment changes in their physiological states. Cultivating self-awareness is crucial, as it enables parents to better interpret their child's behavior and respond in a way that is intuitively attuned to their needs, fostering co-regulation of both their nervous systems. As I explain, the cultivation of compassion and empathy is not merely about understanding what a child is feeling in the moment. It also involves recognizing, adapting, pausing, and being sensitive to the subtle cues and signals that children, especially babies, give through the subtlety of their body language. This empathetic connection is essential for creating a nurturing environment where a child's nervous system can feel safe and secure, and thrive.

I encourage parents to move away from reacting to symptoms or behaviors with a "fixing" mindset and instead adopt a curious approach to understanding the child's journey. This shift is significant when addressing issues that may stem from the cumulative impact of pre-and perinatal experiences, from conception to birth. By doing so, parents can become more intuitive and confident, offering holistic, compassionate support that is deeply attuned to their child's inner needs.

Decoding Baby Body Language: A Window to Understanding

The central concept in my book is Baby Body Language. I explain that babies and young children primarily communicate through physical movements, facial expressions, and behaviors. These nonverbal cues offer a window into the child's internal experiences, helping to rebalance and heal restrictions or compressions. Whether it's an expression of discomfort, stress, emotional needs, or memory crying, these signals reveal essential insights into what the child is experiencing. For example, a baby who is consistently fussy or has trouble sleeping may be trying to communicate an underlying issue or restriction that needs attention. I equip parents with tools and techniques to decode these signals, teaching them to observe the child's movements, facial expressions, and other nonverbal behaviors to understand what they might reveal about the child's physical and emotional state. Parents can better support their child's overall well-being by learning to read and respond to Baby Body Language. This skill helps address immediate concerns and fosters a deeper emotional connection between parent and child.

Pre and Perinatal Experiences: The Foundations of Development

Much of my book is dedicated to exploring the impact of pre- and perinatal experiences on a child's development. These early experiences, which occur in the womb, during birth, and in the first few months of life, can profoundly affect a child's physical, emotional, and psychological well-being.

I explain that these experiences shape a child's nervous system, influencing their behavior, development, and overall health. For example, a challenging or traumatic birth

might leave a child with heightened sensitivity and difficulty in self-regulation. Understanding these connections allows parents to consider the potential root causes of their child's challenges rather than merely addressing the symptoms.

I emphasize the importance of compassionately addressing any stress, trauma, or challenges that may have occurred during these early stages from both the baby's and the mother's perspectives. By doing so, parents who practice self-awareness become more resourceful as their child develops at their own neurodevelopmental pace, allowing the nervous system to regulate in a healthier, more balanced way. I offer practical strategies for supporting this co-regulated healing process, including therapeutic touch and other techniques parents can use at home.

Exploring Past Traumas: A Path to Connection

Healing past underlying issues and emotional traumas for the child and the parents is another central theme in my book. I explore how unresolved trauma from a parent's past can impact their ability to connect with and support their child emotionally. These traumas may stem from their own childhood experiences, pregnancy, or even the birth process itself.

I encourage parents to engage in self-reflection and personal self-development to navigate these issues. This healing process benefits the parent, and creates an opportunity to foster a more nurturing and supportive environment for the child. The book offers guidance on recognizing and addressing these blind spots and traumas, including self-care exercises and techniques parents can use to support their own healing and growth.

One key message is that healing is possible at any stage, and can lead to a more authentic connection with oneself and one's child. I emphasize that the body remembers these early experiences, and by exploring them, parents can help themselves and their children move toward a balanced, co-regulated nervous system and optimal well-being.

The Power of Nonjudgmental Communication

Effective communication is a cornerstone of my approach. I advocate for a nonjudgmental, empathetic, and compassionate communication style, which I reflect in my writing. This approach is essential for creating a safe and supportive environment where child and parent can express their needs and emotions without fear of judgment or criticism, and be heard without shame.

I offer practical tips for parents on communicating with their children, and setting boundaries that foster understanding, connection, and appropriate pacing. This includes guidance on active listening, responding empathetically, engaging in reflective conversations, and avoiding common pitfalls like making assumptions or jumping to conclusions.

Parents can help their children feel genuinely seen, heard, and understood by adopting a nonjudgmental communication style. This, in turn, strengthens the parent-child bond, and creates a foundation of trust and respect that nurtures resilience and builds emotional confidence as the child develops into their teenage years.

Therapeutic Touch: A Powerful Tool for Wholesome Connection

One of the practical tools I introduce in my book is therapeutic touch. I explain how parents can use permission-based touch and massage to help their child naturally re-

lease physical and emotional tension, improve sensory regulation, and enhance overall well-being.

I provide step-by-step instructions on performing these techniques, and tips on adapting them to the child's specific needs. For instance, I explain how certain types of touch can soothe a fussy baby or calm an overwhelmed child.

Therapeutic touch and somatic-based therapies are not just methods for addressing physical issues; they also serve as powerful ways to connect with the child emotionally. Like pediatric practitioners, parents can "listen" with their hands, developing a deeper understanding of their child's needs, and offering comfort and support in ways that words alone cannot achieve.

Case Studies and Personal Stories: Real-Life Applications

Throughout the book, I share case studies and personal stories from my decades of research-based clinical practice, reflecting my ongoing commitment to honing my hands-on/off therapeutic skills. These real-life examples illustrate the effectiveness of the neurodevelopmental and pre- and perinatal – focused somatic disciplines that I integrate into my treatment sessions. I provide practical insights on how parents can collaborate with professionals and apply these concepts in their parenting journey.

The case studies cover a wide range of issues, from common developmental challenges to more complex emotional and behavioral problems. Each story is accompanied by a discussion of the underlying issues and the strategies used to address them. These examples bring the concepts to life, and offer parents hope and encouragement as they navigate their own challenges.

The relatable stories also emphasize the importance of grounding, commitment, and patience in parenting. I show that while challenges can sometimes feel overwhelming, with the proper support and a problem-solving approach, both parent and child can adapt and grow, becoming emotionally stronger and more flexible.

Practical Exercises for Parents: Applying the Concepts

I include a series of exercises at the end of each chapter to help parents implement the concepts and techniques discussed in the book. These exercises guide parents through self-reflection, observation, and interaction with their child. They offer a practical framework for applying principles like compassion, empathy, nonjudgmental communication, and empathetic touch in everyday parenting.

The exercises are tailored to distinct stages of a child's development, from infancy to early childhood, and are designed to be flexible and adaptable. This allows parents to customize them to meet the unique needs of their child and family. I emphasize that these exercises are not a one-size-fits-all solution, but tools that parents can use to deepen their understanding and connection with their child while also seeking additional support as needed.

Advocating for Your Child: Navigating the System

I emphasize the importance of parents becoming strong advocates for their children's needs. This includes developing greater confidence when collaborating with healthcare and educational professionals to ensure their child receives the necessary support and care.

The book offers guidance on effectively communicating with professionals, asking the right questions, and navigating the often complex and underfunded worlds of healthcare and education. I encourage parents to educate themselves about child development, understand their rights, and proactively seek their child's best care and educational opportunities.

Being an advocate also means being informed and empowered as a parent. I stress the importance of staying grounded and curious, asking questions, and being prepared to challenge the status quo regarding your child's well-being.

Understanding Family Dynamics: Breaking the Cycle

Finally, I explore the role of family dynamics in a child's development. I examine how patterns of behavior, beliefs, and emotions can be passed down through generations, indirectly influencing a child's growth. The book introduces strategies for recognizing and addressing these patterns to create a healthier and more supportive family environment.

I also delve into the concept of transgenerational trauma, which involves unresolved issues from previous generations that can impact the current family dynamic. I provide practical advice on becoming aware of and intentionally breaking these cycles to foster a more positive and nurturing environment for the child and immediate family.

By understanding and addressing these family dynamics, parents can help their children avoid repeating the same patterns, creating a legacy of emotional health, flexibility, and resilience for future generations.

Conclusion: A Journey of Transformation

What is My Child Telling Me, That I'm Not Getting... Yet? is more than just a parenting guide; it offers an authentic transformation journey for both parent and child. I provide a wealth of practical advice rooted in compassion, empathy, self-awareness, and a deep understanding of the impact of pre-and perinatal experiences on a child's early development.

Parents can build a more connected and supportive relationship with their children by learning to read Baby Body Language, heal past traumas, and engage in nonjudgmental communication. This book is an invaluable resource for any parent who seeks to navigate parenting challenges with compassion and confidence, adopting a problem-solving approach to ensure their children grow as self-regulated, healthy intelligent individuals, regardless of their neuro-developmental abilities and outcomes.

Anne Matthews, BSc Hons Physio, DC, Dip Biomech, FBCA, CST, PPNE, *is a holistic chiropractor with 38 years of clinical experience. Her professional background includes physiotherapy, chiropractic care, biomechanics, craniosacral therapy, as well as pediatric neurodevelopmental training*

and pre- and perinatal education. Anne established the Belfast Chiropractic Clinic & Complementary Therapies in 1986, where she works with babies, young children, and pregnant mums. She focuses on the resolution of prenatal, birth, and early trauma by interpreting a child's Baby Body Language cues, which a child expresses physically, developmentally, and emotionally. During a child's trauma healing session, Anne will facilitate parents connect more compassionately and empathic way with their child. Anne guides parents in fostering a deeper connection with their child in a more compassionate and empathetic way.

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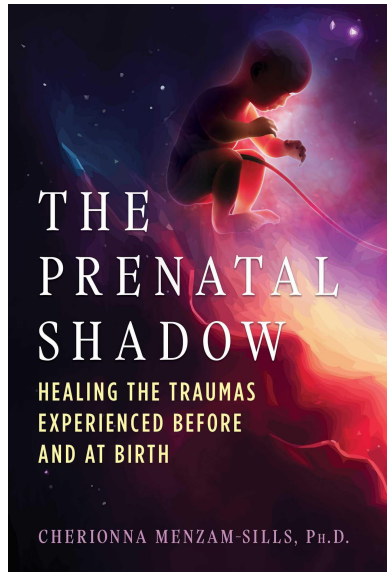
BOOK REVIEW

The Prenatal Shadow Healing the Traumas Experienced Before and At Birth

by Cherionna Menzam-Sills

Kate White



The publication of *The Prenatal Shadow* by Cherionna Menzam-Sills is an important event in the growth of the field of prenatal and perinatal psychology (PPN). Like *The Secret Life of the Unborn Child* by Thomas Verny (1981), a seminal work that established that babies have experiences that can last a lifetime, this elegant book by Menzam-Sills lights our way toward truly understanding how earliest experiences may express themselves and how to work with them. Professionals in the field of PPN have strived for recognition of their passion, beliefs, and practices. This book has an easy-to-follow but deep approach for the newly interested and the finely experienced.

Each chapter describes early experiences, and how they impact our lives as "shadows" emerging into the light of our consciousness. Menzam-Sills states that the "*shadow*, a term coined by Carl Jung, refers to unacceptable aspects of ourselves that we have pushed

down into the unconscious mind" (p. 2). While our first taste of the baby's experience began 100 years ago with the publication of The *Trauma of Birth* (1929) by Otto Rank, we as a culture, or what Menzam-Sills calls a "collective," persistently deny the experience of babies. It is only recently that earliest experiences from preconception onwards have begun to be more accepted, despite data showing how early life in the womb has lifelong implications.

Menzam-Sills has studied PPN most of her adult life and taken many trainings that contribute to the facets of healing, and her earned wisdom is apparent. She immediately sets up the reader for success in navigating the shadow material with therapeutic suggestions, including resourcing, journal prompts, and guiding questions. She deftly describes how the baby's experience may create survival responses, and how they can linger in adults, influencing life choices and further development. The history of the development of the field is laid out, as well as current theories of trauma. Case studies illuminate the author's points, and reflections are offered at the end of each chapter for further understanding and integration.

Menzam-Sills carefully lays out a path for the reader, gently taking them through what these shadows might be, and what to do about them. In Chapter One, she introduces the notion of earliest human experiences as shadows, and how much they influence behaviors, worldviews, perception, and more. She also includes historical descriptions and professional development. Chapter Two explores the earliest layers of prenatal life, particularly implantation as an example, and how that "imprint" or impression impacts our development. Here, the baby's experience is shown, and how babies tell their story through behavior and response to words and stimuli. Menzam-Sills draws from many great thinkers and practitioners in the PPN field to support her writing and clinical experience. Chapter Three celebrates the health in early human life through education about our "original embryological potential." The embryo has a powerfully positive place in our lived experience because of how our bodies form. This chapter also describes biodynamic craniosacral therapy and some of the important principles that apply in understanding how the baby's experience unfolds, and the health that supports human development from early forces such as fluid tides, pulses, and movements. A Continuum practitioner, Menzam-Sills leads the reader through a practice to help build sensory awareness. Finally, she helps the reader connect to the Earth as a practice of connecting to self and others.

Chapter Four describes the challenges of birth, and its potential traumas that we may experience. If unresolved, these birth traumas may manifest as further challenges later in life. Here, the practice is finding layers of support. The chapter details several different kinds of early trauma, such as prenatal experiences, birth, and modern birth practices, and includes a list of common birth traumas and their effects. Babies have distinct experiences of birth without interventions. This process is also described from what we now understand as a sequence of movements and positions that may linger in the body. Menzam-Sills further addresses how to help babies with birth trauma. Chapter Five explores common themes related to after birth, especially parent-child bonds and attachment. This early relationship may have a significant shadow that lingers not only in present relationships, but also ancestrally and in subsequent generations.

The final chapter talks about how to heal the relationship with the shadows Menzam-Sills describes, and how we can return to our potential. Chapter Six is called *Shining the light, prevention and healing: Healing the collective.* It presents how "throughout this book, we have been shining a light on prenatal and birth trauma, and how it might resonate with our lives, bodies and consciousness now" (p. 178). The descriptions in the previous chapters are meant to "shine the light on shadow." Perhaps readers have won-

dered if their early lives might still be influencing their thoughts, feelings, and behaviors. Menzam-Sills invites consciousness and healing with her writing. She asks, "How do we embrace the monsters within? The tools I find most effective are the triad of awareness, acknowledgment, and appreciation" (p. 179).

Thank you, Cherionna Menzam-Sills, for bringing us and the world a little closer to wholeness. Readers may integrate their early experiences through reading this book, or at least expand their awareness of how early life experiences can have lifelong effects, and how to heal from their influences.

■ ■ ■

Kate White, MA, BCBMT, RCST©, CEIM, SEP, PPNE, PLC, *is the Founder and Director of the Center for Prenatal and Perinatal Programs, Prenatal and Perinatal Healing Online, and the Prenatal and Perinatal Somatics Institute. As a prenatal and perinatal somatics practitioner who trained with many pioneering teachers in birth psychology, she founded the Department of Education for the Association for Prenatal and Perinatal Psychology and Health and now trains practitioners in the unique field of preventing and healing earliest trauma. She is an award-winning educator and has a private practice.*

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An Interview with Stefan Ide

DGK Chair ■ SOMA Festival Organizer

A festival for body psychotherapy sounds exciting and completely new! Can you explain what this festival is and how it differs from the conferences and congresses we know?

The Body Psychotherapy Festival SOMA aims to create a vibrant and inclusive space, uniting individuals from the fields of body psychotherapy and bodywork. Whether through training groups or professional identities, attendees will have the opportunity to connect, network, and share ideas and experiences across the diverse spectrum of psychotherapeutic and therapeutic methods. The festival emphasizes experience, featuring a select number of specialist lectures by leading figures in the field; however, the primary focus is on numerous experiential workshops designed to foster new opportunities for all participants. Our goal is to cultivate a festival of encounters, vitality, and joy.

How did you come up with this idea? When and what inspired you to organize a festival?

The idea first emerged three years ago during a meeting of the National Council of the European Association for Body Psychotherapy (EABP). My colleague Marc Rackelmann and I attended this meeting for the first time as delegates of the German National Association DGK, and we had plenty of time to brainstorm ideas and discuss the changes we wanted to see in our association. The National Council meeting took place in beautiful weather in Greece. We even went to the beach together, and while swimming in the sea, we realized that previous formats, such as conferences or congresses for body psychotherapy, could perhaps be revised and further developed. We hoped to find approaches that might appeal more to younger colleagues. That's how we conceived the idea of organizing SOMA.

What lies at the heart of the festival? What kind of atmosphere or experience do you envision for participants upon their arrival?

The SOMA Festival creates opportunities for body psychotherapists, practitioners, researchers, students, and enthusiasts to gather in a supportive and inclusive environment that fosters a sense of belonging and connection within the body-psychotherapy community, facilitates networking and collaboration, promotes the exchange of ideas, and, most importantly, encourages the younger generation of body psychotherapists.

Could you provide some insight into what attendees can expect – what types of workshops, activities, or moments will make this festival special?

At the core of body psychotherapy is the recognition that emotional and psychological well-being is deeply intertwined with physical health. Our festival emphasizes this integration, offering tools and techniques to harmonize your mind and body, leading to lasting change while also providing spaces and activities for recreation and connection. Each day of the festival is dedicated to a distinct theme:

- **Day 1** Roots and Development of Body Psychotherapy
- **Day 2** The Body as a Crossroads of Cultural Diversity
- **Day 3** Somatic Dimensions of Trauma
- **Day 4** Vitality, Spirituality, and the Body

Each theme is introduced by our keynote speakers and further explored in a variety of engaging workshops. We are honored to feature keynote presentations from Stephen W. Porges, Matthew Appleton, Merete Holm Brandtberg, Maurizio Stupiggia, Alexandra Algafari, Marc Rackelmann, Bettina Schroeter, Kathrin Stauffer and myself, Stefan Ide.

Who do you think will attend the festival? Is it mainly aimed at professionals, or do you hope to reach a wider audience?

Registration for the festival is open to anyone interested. We hope that the festival will appeal to younger colleagues who are perhaps still in training or at the beginning of their careers as body psychotherapists. Registration opened just before Christmas, and we already have attendees from 12 countries, including the US. SOMA will be conducted entirely in English, and we expect participants from all over Europe and North America.

Body psychotherapy is practiced in many ways around the world. To what extent does this festival reflect or celebrate the diversity of approaches and traditions in our field?

The festival is dedicated to showcasing the diverse range of body psychotherapy practices. We acknowledge the foundational contributions of Neo-Reichian schools, including bioenergetics, biodynamics, and biosynthesis, which have profoundly influenced the field. Additionally, we aim to highlight various methods such as breathing therapy, concentrative movement therapy, dance therapies, and voice and expression work. By encouraging practitioners from these varied areas to submit their workshop proposals, we strive to create a comprehensive platform that honors and celebrates the multitude of approaches and traditions within body psychotherapy. This inclusive approach ensures that attendees can experience and learn from a broad spectrum of practices, reflecting the global richness of our field.

What do you hope participants will take away from this festival – both personally and professionally?

Whether you're there to heal, learn, or experience the joy of movement and connection with a vibrant multicultural and international community interested in body psycho-

Some members of the SOMA team visited the venue in Bad Meinberg in August
Left to right: Marton Szemerey, Saranda Rexha, Marc Rackelmann, Alexander Vachev, Stefan Ide

therapy, you will leave SOMA with a sense of belonging, a deeper understanding of our profession's significance, and a renewed appreciation for our community and our capacity to connect and grow.

Creating something so unique must be a challenge. Who are the people behind it and making it happen?

We have a fantastic international team composed of young and experienced professionals from the field of body psychotherapy. For instance, two young colleagues, Alexandra Algafari and Alexander Vachev, played a vital role in organizing the EABP Congress in Sofia 2023. With great commitment, they now apply all their experience to this project. We also have the support of the President of the EABP, Kathrin Stauffer, and the Secretary of the EABP, Saranda Rexha. Marton Szemerey, the speaker of the EABP Forum (the body psychotherapeutic schools represented in the EABP), is another key supporter. Of course, we also have the backing of representatives from the host organization, the German Association for Body Psychotherapy (DGK): Marc Rackelmann, the second chairman; Bettina Schroeter, another board member; and myself, Stefan Die, in my role as chairman of the DGK. We will also rely on the help of a team of volunteers both before and during the festival.

This is such a new and exciting concept. What would you like to share with the body psychotherapy community to help them prepare for this festival?

Well, first of all, if they haven't done so already, they definitely need to mark the dates on their calendars and secure their tickets as soon as possible – this is an event you won't want to miss! Staying connected with us through our website and social media is crucial to receive the latest updates and insider information about the festival. We're excited to receive workshop proposals, but we're also open to new ideas for additional activities – especially those that promote cultural exchange and bring people together in fresh and innovative ways.

All roads lead to Bad Meinberg…

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INTERNATIONAL **BODY PSYCHOTHERAPY** JOURNAL
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The Art and Science of Somatic Praxis

Call For Papers

Summer 2025

Special Issue
Psychoanalysis and Somatics

Guest Editor
Helena Vissing, PsyD, SEP, PMH-C

The International Body Psychotherapy Journal is pleased to announce a call for papers for a special issue exploring the multifaceted and often challenging relationship between psychoanalysis and somatic psychology. As guest editor, Helena Vissing invites contributions that critically examine the theoretical, clinical, and historical intersections – and tensions – between these two fields, highlighting how their convergence is reshaping therapeutic practice while also sparking profound debate.

Psychoanalysis and somatic psychology approach the human experience from different angles. Psychoanalysis has traditionally focused on the workings of the unconscious mind, relational dynamics, and the symbolic interpretation of psychic life. In contrast, somatic psychology emphasizes the body's lived experience, direct engagement with sensory information, and physiological regulation as central to healing. Despite their shared interest in the complexities of human emotion, identity, and trauma, integrating these perspectives presents exciting possibilities and significant challenges.

In recent years, there has been a growing recognition of the value of incorporating body-focused interventions within psychoanalytic practice and applying psychoanalytic insights within somatic therapy. However, this integration is not without obstacles. Some argue that psychoanalytic theories can undermine somatic approaches by overly intellectualizing embodied experience (Orbach, 2006), while others point out that somatic psychology's focus on immediacy and sensation may overlook the depth of unconscious material (Bucci, 1997).

This special issue seeks to address these complexities, inviting contributions that explore both the synergies and the friction points between these approaches..

Suggested Topics

Submissions are welcome on a wide range of topics that probe the depths of this interdisciplinary relationship, including but not limited to:

- **Theoretical and philosophical tensions:** Papers that address philosophical and theoretical tensions between psychoanalytic and somatic approaches, such as conflicts between intellectual insight and embodied experience, or differing views on the roles of memory, unconscious processes, and symbolic representation.
- **Historical perspectives and evolution:** We invite articles that trace the history of psychoanalysis, particularly how it has evolved from its early roots with Freud to contemporary perspectives that increasingly recognize the body's role in psychological experience. How have changes in psychoanalytic theory influenced or been influenced by somatic psychology? What can we learn from the ways these fields have historically interacted, diverged, and sometimes resisted each other? (Freud, 1923; Reich, 1945).
- **Clinical challenges and innovations:** Case studies and clinical insights that illustrate the complexities of integrating somatic interventions within psychoanalytic practice, or using psychoanalytic concepts in somatic work. These submissions might discuss the challenges in navigating transference and countertransference when the body is directly engaged or how somatic interventions can both complicate and enrich psychoanalytic processes (Fosha, 2000; Ogden & Fisher, 2015).
- **Trauma, affect, and body:** Contributions that explore the role of the body in trauma processing from both psychoanalytic and somatic perspectives, including how trauma affects physiological and emotional regulation and the neurobiological basis of trauma treatment. Authors might discuss the complexities of bridging somatic and psychoanalytic understandings of trauma (van der Kolk, 2014; Schore, 2003).
- **Intersubjectivity and embodiment:** Articles exploring the relational and intersubjective aspects of somatic and psychoanalytic practices, such as how co-regulation and somatic resonance operate within the therapeutic dyad. These contributions might discuss how embodied attunement can deepen or challenge psychoanalytic concepts of relationality and mutual recognition (Benjamin, 2018; Schore, 2003).
- **Innovative research directions:** We welcome empirical studies that investigate the efficacy and challenges of integrated somatic-psychoanalytic approaches, including studies on neurobiological markers of change, sensory processing, and the effects of embodied interventions in psychoanalytic settings. We also welcome qualitative and quantitative studies that offer insights into the challenges and potential of combining these fields (Maté, 2010; Payne, Levine, & Crane-Godreau, 2015).

Papers should be submitted by June 1st 2025

Please send submissions to Helena Vissing

IBPJsubmissions@ibpj.org

INTERNATIONAL **BODY PSYCHOTHERAPY** JOURNAL

The Art and Science of Somatic Practice

Volume 23 ■ Number 2 ■ 2024-2025

The *International Body Psychotherapy Journal (IBPJ)* is a peer-reviewed journal, published twice a year in spring/summer and fall/winter. It is a collaborative publication of the European Association for Body Psychotherapy (EABP) and the United States Association for Body Psychotherapy (USABP). It is a continuation of the *USABP Journal*, the first ten volumes of which can be found in the *IBPJ* archive.

The *Journal*'s mission is to support, promote and stimulate the exchange of ideas, scholarship, and research within the field of body psychotherapy and somatic psychology as well as to encourage an interdisciplinary exchange with related fields of clinical theory and practice through ongoing discussion.

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Letters to the Editor

The Editors are eager to receive letters, particularly communications commenting on and debating articles already published in the *Journal*, but also suggestions and requests for additional features. A selection of letters received will be published in the next issue of the *Journal*.

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First consideration will be given to articles of original theory, qualitative and quantitative research, experiential data, case studies, as well as comparative and secondary analyses and literature reviews.

Authors must certify that any material presented to the *International Body Psychotherapy Journal* is original unpublished work not under consideration for publication elsewhere.

Our editors and reviewers will read each article with the following questions in mind:

- Does material in this manuscript inform the field and add to the body of knowledge?
- If it is a description of what we already know, is there some unique nugget or gem the reader can store away or hold onto?
- If it is a case study, is there a balance among the elements, i.e., background information, description and rationale for chosen interventions, and outcomes that add to our body of knowledge?
- If it is a reflective piece, does it tie together elements in the field to create a new perspective?
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Order of Information: Title, full authorship, abstract (±100-350 words), keywords (3-5), text, references, biography (100 words). The biography should include a photo, the author's degrees, institutional affiliations, training, e-mail address, and acknowledgment of research support.

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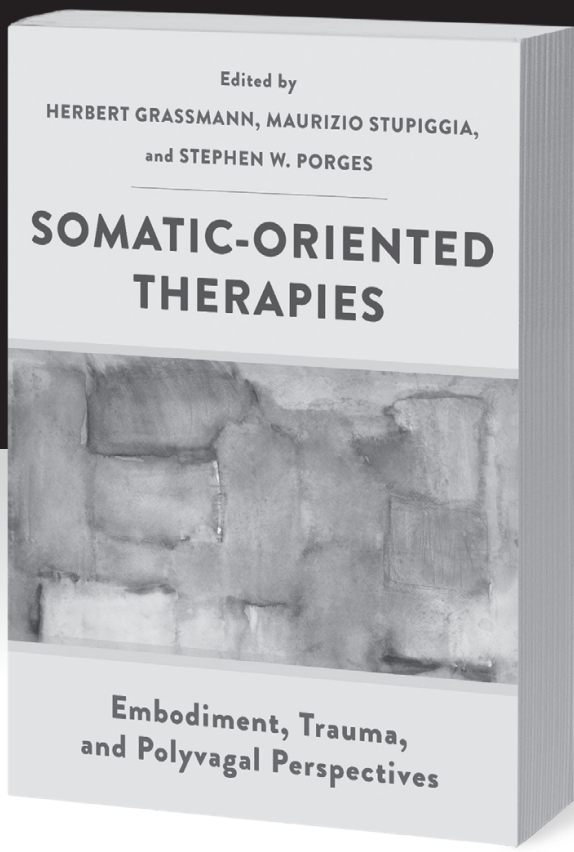

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This innovative volume of collected work from over 40 leading somatic therapy experts gathers the latest research and clinical interventions to revolutionize trauma treatment. Editors Herbert Grassmann, PhD, Maurizio Stupiggia, PhD, and Stephen W. Porges, PhD find the common thread linking the contributing authors to introduce a new, cohesive clinical perspective.

Central to this perspective is the recognition of the profound significance of the body-to-body relationship between therapist and patient; the critical role of trust establishment within the clinical context as a prerequisite for deep transformation; and the possibility to "question" the body, finding "unthought-of" avenues of transformation.

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