

Safe and Sound

A Polyvagal Approach for
Connection, Change, and Healing

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Foreword

Learning how to create an environment that feels safe can help both clients and individuals in everyday situations reduce defensiveness, leading to deeper connections and greater understanding. With that in mind, it can be important to ask the questions *How often does therapy falter due to a client's defensiveness?* and *Do we really understand the nature of these defenses?* This understanding is crucial not only for therapists but also for anyone pursuing personal growth or navigating interpersonal relationships. By recognizing our own defensive patterns, we can foster healthier communication with others.

It is here that the polyvagal theory offers a fresh perspective, and the Safe and Sound Protocol (SSP) provides a renewed approach to finding such solutions. Through a detailed exploration of the theoretical underpinnings and practical applications of Polyvagal Theory and SSP, this book aims to enrich the reader's understanding of the fundamental nature of human defense mechanisms and the quest for psychological safety. It is a vital resource for anyone interested in enhancing the efficacy of therapeutic interventions or developing a compassionate approach to self-healing.

Polyvagal theory emphasizes the crucial role that the muscles of the face and head play in shaping how we perceive and respond to the world around us. It has provided the missing link, explaining how our biobehavioral state—whether we feel calm and connected, activated, or shutdown and dissociated—directly influences our perceptions and reactions to our environment and to others.

This is where the SSP comes in. It offers an effective solution to create the *physiological underpinning of safety*, which facilitates the formation of a therapeutic alliance and helps address underlying trauma. By focusing on the neural detection of safety, through the polyvagal process of “neuroception,” SSP equips therapists with a powerful tool to help their clients become more open and receptive to therapeutic interventions.

This is why many Somatic Experiencing (SE) therapists have seamlessly integrated SSP into their practices. Once understood as a “neural exercise” that promotes greater state regulation and autonomic flexibility, SSP complements the SE concepts of titration (experiencing contraction with minimal autonomic nervous system activation) and pendulation (the innate rhythm between contraction and expansion), which are essential in building resilience.

This is a book that will enrich clinicians’ understanding of the fundamental nature of defense and safety, offering practical solutions for creating more effective therapeutic outcomes. It is also a book for anyone seeking a deeper understanding of safety and greater self-compassion.

Peter A. Levine, PhD

author of *In an Unspoken Voice: How the Body Releases Trauma and Restores Goodness* and *An Autobiography of Trauma: A Healing Journey*

Introduction

Retuning the Autonomic Nervous System to Generate Change and Connection

Stefan, a retired submariner, was initially skeptical about the effectiveness of SSP. His wife had suggested it to him, but he doubted that a listening therapy would be any different from listening to the radio. Although he didn't think he needed therapy, he decided to try it, almost to prove his wife wrong. However, much to his surprise, during SSP he noticed that the constant, involuntary bouncing of his leg suddenly stopped. He started sleeping better than he could remember. Surprisingly, his acidic stomach, which he had assumed was normal, also improved. Additionally, he found himself less bad-tempered and argumentative, traits he had always considered just part of who he was. Three years later, these changes have mostly endured.

Safe and Sound Protocol (SSP) is a noninvasive therapy based on Polyvagal Theory (PVT) that involves listening to music that has been filtered to prioritize the frequencies of human speech. This auditory input enables the nervous system to be receptive to cues of safety and to downregulate defensiveness. SSP doesn't rely on your intentions, beliefs, or effort; it works because it engages the nervous system directly without requiring mental or verbal processing.

Feeling safe is a powerful remedy for trauma and dysregulation. Abundant cues of safety are required to offset nervous system imbalance

to facilitate connection, change, and healing. This notion is central to SSP and is rooted in PVT.

Polyvagal Theory: The Foundation of Safe and Sound Protocol

Polyvagal Theory (PVT)¹ is the foundational concept behind Safe and Sound Protocol (SSP) and provides insight into why it is so effective. PVT highlights the crucial role of the body and nervous system in health and well-being, demonstrating how our thoughts, emotions, and behaviors are shaped by our body's ongoing assessment of our level of safety or threat. It underscores the bidirectional communication between the body and the brain and the necessity of fostering safety and connection to enhance overall health.

While the origins of PVT are based on neuroanatomy and neurophysiology, its practical application lies in understanding and improving our lived experience. At its core, PVT is a forgiving and hopeful theory about our nervous system, and understanding more about it gives new insights into human behavior. Using a polyvagal lens, we can see the world and how we live in it in a more positive way. A polyvagal approach to life invites curiosity and enhances our experiences and relationships.

PVT elucidates how trauma, illness, disorders, and life experiences can retune the nervous system away from homeostasis and resilience to become trapped in a state of threat and defensiveness, manifested as anxiety, depression, or shutdown. Such defensiveness, while adaptive for survival, constricts our thinking, hinders our ability to connect with others for support, and makes it challenging to feel at ease.

In fact, at the core of many mental, behavioral, and physical health challenges is a nervous system stuck in a state of chronic defense. A medicalized approach to these challenges can sometimes fall short and even pathologize or stigmatize a person by labeling them as unwell. By focusing instead on the intricate connection between the brain and body as PVT does, we hope clinicians will have a more compassionate and understanding perspective toward their clients. Individuals, in turn, can deepen their awareness of themselves—sensations, thoughts, emotions, and behaviors included.

SSP, in line with this approach, aims to rebalance the nervous system to restore optimal health and equanimity. Detailed in chapter 2, this evidence-based protocol has successfully helped hundreds of thousands of people retune their nervous systems and cultivate a stronger sense of safety.

Insight from Diverse Cases

The diverse case stories of SSP in the second part of this book show that when the nervous system regains its capacity to feel safe, individuals can express themselves genuinely, engage comfortably with others, and embrace a life of greater openness and ease. What we all want is to feel safe enough to be who we are, in all of our insights, intelligence, creativity, benevolence, and compassion. SSP serves as a catalyst, guiding individuals toward a state of safety and connection by helping the nervous system restore its fundamental balance and flexibility.

Here are three short vignettes of SSP experiences that illustrate how each client was able to better connect with the people in their life and to live with authenticity and joy.

A Child Moving from Self-Regulation to Co-Regulation

Mateo was a shy, autistic four-year-old who could not sustain eye contact or engage socially due to his unique sensory sensitivities and communication style. He attended regular sessions with Christine, his occupational therapist, to listen to SSP. He was offered an array of toys organized in colored bins to play with while listening to the filtered music of SSP. Mateo chose the same two bins of plastic dinosaurs, cars, and trucks to play with during each SSP session. During the first two SSP sessions, he was laser-focused on lining up the dinosaurs and vehicles by size, color, and type. This was an adaptive strategy he used for self-regulation and comfort during unfamiliar situations.

During the third session, he made the dinosaurs walk around, and he drove the cars and trucks in circles, smiling impishly up at Christine. This was the first time he had ever sought out eye contact with her. In the fourth session, he made a dinosaur drive a truck, giggling at the silliness. His body language was more open, his face lit up with his smile, and he

showed a sense of playfulness and curiosity that Christine hadn't seen before. In the last session of SSP, he picked up two cars, handed one to Christine, and started to drive his car, making it clear that she should do the same. Their mutual delight in the back-and-forth play was palpable.

Mateo transitioned from relying on a robust internal locus of control and a preference for routine and predictability to welcoming reciprocal connection, co-regulation, and playfulness. Because of SSP, Mateo was able to build trust with a safe person, a connection that may not otherwise have developed. As a result, his nervous system is now primed for more co-regulatory experiences like this one. His newfound level of connection brought immense joy to his family while also accelerating his progress in motor planning and sensory integration.

A Traumatized Woman Overcomes Lifelong Panic

Years after Teresa's mother fled Germany as a young woman in the 1930s, she suffered from flashbacks of mob violence where she had witnessed multiple murders, including one of a newborn infant, and she herself narrowly escaped death.

When Teresa was eight weeks old, her mother experienced a flashback of those horrors and believed she and Teresa were facing an angry mob. Struggling in a blind frenzy, she unintentionally caused Teresa severe and extensive injuries. This event, its aftermath, and later similar episodes with both parents taught Teresa to avoid others and dissociate when anyone came near. She left home at 18 and soon forgot almost all of her childhood. She created a good life, pursued many interests, but couldn't relax except when alone.

In her midforties, Teresa's senses became increasingly scrambled; she couldn't see and hear at the same time or control her physical movements. She forgot how to dress and tell time. She passed out after eating. Medical doctors could find nothing wrong. Alternative healing methods provided some relief, but, as a side effect, she began having terrifying flashbacks of being hurt by her mother. Upon questioning, her mother confessed and apologized for her violence. Yet Teresa's flashbacks grew worse.

Still seeking help in 2019, Teresa discovered SSP and found that it lifted the crushing weight she'd always carried. She realized that the weight had been a lifelong experience of panic. She completed SSP a second time four months later and became "astonishingly sociable" and able to think in "new, clear-minded ways." Teresa has since completed SSP five more times to peel away additional layers of trauma.

She sees how limited her life was, revels in her new ease especially with self-care, and for the first time, can sense her body and emotions without triggering traumatic replays. Her life is full now: she has many friends she enjoys spending time with, participates in group activities, and even performs comedy.

Digging Out of a Dark Hole of Alienation and Long COVID

Omar was a Muslim teenager in London when the world was shaken by the tragic events of September 11, 2001. After that, like many Muslims, he experienced suspicion, discrimination, and hostility due to his faith.

Over the years, he became deeply involved in political activism, working passionately to fight against government and media discrimination. In June of 2021, he tested positive for COVID and his infection progressed into Long COVID. He experienced breathing difficulties, extreme chronic fatigue, dysregulation, and difficulty sitting up or standing. He searched desperately for remedies and tried various ones with limited success. When he finally connected with an SSP provider, he had been housebound for almost a year and needed to lie down for their virtual sessions.

Omar immediately resonated with the ideas of PVT shared by his SSP provider as it answered so many questions about his own experiences, including his behaviors and those of others in his past. He was able to identify the "siege" mentality he took on in the post-9/11 environment, seeking to protect himself and his community from discrimination, though leaving him in a heightened state of vigilance. During this period, he found the safety and community he craved by joining various Muslim groups. When incriminating information about some of his own religious leaders emerged, the perspective of

PVT allowed him to remain curious, despite the deep spiritual questioning and feelings of rage this triggered.

After months of weekly sessions of slowly titrated SSP, Omar gradually gained new health and energy. He went from using a wheelchair to walking and driving a car again. While previously he had no concentration and was unable even to read a single page of an academic book, he is now pursuing a PhD at Cambridge University. He credits SSP and his provider equally for helping him to “find his way out of a very dark hole.” While he still feels somewhat vulnerable, he knows he is on a positive journey of growth and healing.

The unexpected and quite different changes resulting from SSP that Stefan, Mateo, Teresa, and Omar experienced are possible because of how SSP can affect our autonomic nervous system (ANS), which is central to our physical and mental health. SSP can adjust the central control dial of our nervous system to retune it and help to shift it toward balance and ease. As you will learn, this control dial is in the brainstem, the nexus of the body-brain connection. By infusing a sense of safety, SSP initiates feedback loops that can change the settings of the central control dial. This shifts the nervous system away from defensiveness and toward a greater capacity for social connection, the ability to accommodate stressors, and better health.

About Us and Our Vision for This Book

To provide context for how SSP came to be, we will start with a brief introduction to our background and work. Stephen W. Porges is a world-renowned and distinguished neuroscientist, the developer of PVT, and the creator of SSP. He has published more than 500 peer-reviewed papers that have been cited over 60,000 times and six books on PVT. Karen Onderko has been instrumental in bringing SSP from the laboratory to the clinical world, conducting the initial testing, developing the early training, creating delivery guidelines, and supporting the SSP provider community.

We conceived the idea of a book of case studies in 2017 during the early stages of SSP’s release and adoption by clinicians. As stories

of change and connection flooded in, each offering valuable insights, the potential for a comprehensive exploration was realized. Through the enthusiasm of the early SSP provider community, the breadth of the possibilities and applications of SSP was clear and compelling.

Case studies and stories formed SSP's foundational evidence base upon which clinical trials, randomized controlled trials, and real-world evidence were added. We envisioned a book that utilized cases to illustrate how PVT not only unveils the roots of clinical symptoms but also demonstrates how SSP can alleviate them and enhance overall well-being.

How SSP Came to Be

SSP was developed based on Steve's optimistic belief that the nervous system's flexibility could be adjusted to encourage spontaneous engagement, co-regulation, and trust. Over years of research, he noticed that the state of one's nervous system (their "autonomic state") and their behavior were closely linked. By identifying physiological markers that indicate a tendency to be under- or overreactive, he created a treatment model. This model focuses on changing the autonomic state that predisposes a person to react, rather than addressing the reaction itself. Traditionally, therapeutic strategies aimed to change responses like behavior, thoughts, or physiological reactions to stimuli. His approach shifts this focus to adjusting the autonomic state, which can restore the natural ability for engagement, flexibility, and resilience. For a full vision of how the protocol came to be, we share Steve's personal journey with SSP and the history of its evolution below (a more detailed account can be found on this book's bonus page online: soundstrue.com/safe-and-sound-bonus).

The Prehistory of SSP

Between 1985 and 2001, as a faculty member at the University of Maryland, Steve was interested in the autonomic and behavioral regulation of autistic children. At that time, since he was formulating PVT, he was curious if features of individuals' interactive social behavior were dependent on their autonomic state. Based on his research he hypothesized that poor autonomic regulation was foundational and that signals of calming and

safety would be supportive. As PVT evolved, he began to understand the profound signaling power of melodic vocalizations in calming. He started to use the mother's vocal calming of an infant and our vocal engagement of our mammalian pets as a model for a potential intervention.

Creating and Researching an Early Version of SSP

By the late 1990s Steve had spent hundreds of hours observing autistic children. He witnessed the behavioral defensiveness of these children and their hypersensitivities and intuitively wanted to calm their nervous system to enable them to feel more comfortable in their bodies. He envisioned a way that was totally different from the treatment models that emphasized behavioral modification techniques, which were prevalent in the 1990s. Steve wondered if PVT would provide the insights to craft such an intervention. Thus, the initial SSP was prototyped as a stealth intervention that communicated with the hard-wired circuits that the calming prosodic vocalizations of a mother's lullaby intuitively recruited. The prototype was called the Listening Project Protocol (LPP).

Steve envisaged a neural exercise in which the acoustic signal (filtered music) would be delivered to the child's nervous system through a narrow frequency band that would be available even when in a defensive state. The frequency band of the music would progressively expand and contract until the child experienced and welcomed the full frequency band of social communication; that is, the acoustic frequencies through which human vocalizations are used for social communication. Steve theorized that as the acoustic frequency band expanded and contracted, the neural regulation of structures involved in social engagement linking the muscles of the face and head with the calming influence of the vagus nerve (see chapter 1) on the heart would become available.

Steve viewed hypersensitivity and gaze aversion as natural responses to perceived threats by the ANS. While common in autistic individuals, these behaviors are seen as adaptive rather than pathological. PVT suggests that sensory issues, central to autism diagnoses, may lessen when the nervous system feels safe, such as through LPP. This nonjudgmental