



THE POCKET GUIDE TO  
**THE POLYVAGAL  
THEORY**

*The Transformative  
Power of Feeling Safe*

STEPHEN W. PORGES

## The Pocket Guide to the Polyvagal Theory: The Transformative Power of Feeling Safe



Written by Stephen W.  
Porges

Reviewed by  
Nancy Eichhorn



I am, admittedly and unabashedly, enthusiastic about Stephen Porges' work. I've attended his workshops, learned his process for measuring heart rate variability as an indicator of vagal tone, interviewed him for several articles published in this magazine, and have read his books and articles. This review is clearly biased. And with that said, I will offer my honest opinions and not side step points that for some may or may not be considered 100 percent positive.

For those new to Porges' work, he is noted as the originator of the Polyvagal Theory (PVT), which is his perspective of how our autonomic nervous system, dependent on phylogenetic transitions/shifts that occurred between reptiles and mammals, resulted in specific adaptations in vagal pathways regulating the heart, which in turn impact our lives.

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Scaling down to its bare roots, at least how I interpret what I'm reading, PVT considers our ability to regulate our visceral state in the presence of others, our ability to read our body's signals and respond (challenging Descartes subjugation of bodily feelings to cognitive function), and immobilization without fear (which "requires the co-opting of the neural pathways involved in 'immobilization with fear' with features of the social engagement system and neuropeptides, such as oxytocin" (pg. 243)). The heart and soul of PVT is safety and trust.

"As the source nuclei of the primary efferent vagal efferent pathways regulating the heart shifted from the dorsal motor nucleus of the vagus in reptiles to the nucleus ambiguus in mammals, a face—heart connection evolved with emergent properties of a social engagement system that would enable social interactions to regulate visceral state" (Porges, 2009, 1).

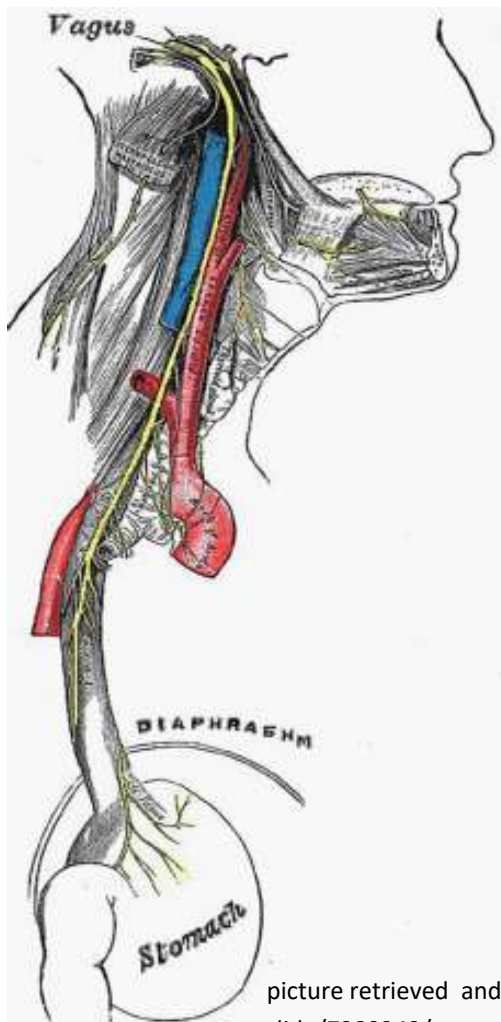
His theory "emerged" from his "research and insights on October 8, 1994" (Porges, 2017, ix). It started with a personal curiosity that evolved into a "lifelong journey to understand how our physiology was related to our mental and behavioral states" (pg. 98). How it all came about is a fascinating read, starting on page 60, when Porges talks about a letter he received from a neonatologist regarding a paradox—the notion of vagal activity being protective didn't fit with the concept that the vagus could kill you. Porges framed a question to create the foundation for his research:

"How could the vagus be both protective

when it was expressed as respiratory sinus arrhythmia and life-threatening when it was expressed as bradycardia and apnea?" (pg. 60).

Investigating the neuroanatomy of the vagus and identifying the vagal mechanisms underlying this paradox evolved into the PVT. He learned that two different vagal systems existed, one mediated bradycardia and apnea, the other respiratory sinus arrhythmia. These two pathways originated in different areas of the brainstem. According to Porges, these two circuits evolved sequentially such that "we have a built-in hierarchy of autonomic responses based on our phylogenetic history. These facts became the core of the Polyvagal Theory" (pg. 61).

Porges is clear that our autonomic nervous system and its two main divisions—the sympathetic and parasympathetic nervous systems—are not synonymous with what he calls our social engagement system; furthermore, this third system is not simply the vagus nerve (our tenth cranial nerve). The social engagement system, per Porges, has a somatomotor component that involves special visceral efferent pathways that regulate the striated muscles of the face and head, and a visceromotor component that involves the myelinated vagus that regulates the heart and bronchi (pg. 27). Basically, the social engagement system emerges from a heart to face connection that coordinates the heart with the muscles of the face and head (pg. 27). (For more information see John Chitty's article starting on page 42).



picture retrieved and text modified from Taruno Steffensen's presentation: <http://slideplayer.com/slide/7389242/>

## The Polyvagal Theory

By Stephen Porges

The autonomic nervous system in three parts, all working synergistically

Ventral Vagal System:

Is part of the parasympathetic nervous system (social engagement/frontal cortex)

Dorsal Vagal System:

Is part of the parasympathetic nervous system (freeze/immobility/brainstem)

Sympathetic Nervous System:

Is NOT vagal but functions most efficiently when vagal systems are suppressed

(flight/fight, freeze—limbic brain)

His theory provides an understanding of how people's bodies, when experiencing trauma, are re-tuned in response to the life threat and lose the resilience to return to a state of safety (xi). He is quite clear that our nervous system "craves reciprocal interaction", that our ability to reciprocally regulate each other's physiological state results in relationships that enable us to feel safe (pg. 99). His work extends from basic science and understanding to impact psychology, education, and special needs individuals—specifically autism.

Before I delve further into this fascinating neural world of reaction and response, a few details such as, why did Porges write this

book?

Porges notes that his original book (2011), *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication and Self-Regulation*, was penned for scientists. The material is considered "dense" and toned for those in scholarly/academic fields who are research driven and want data. The book was, in fact, a collection of previously published articles (in peer reviewed journals and academic books). It's outcome—translated into German, Spanish, Italian and Portuguese—surprised him, as well the fact that many professionals were reading and

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continue to read the book. In response to requests to make his theory more accessible to those outside of academia (clinicians and their clients), Porges (2017) wrote, *The Pocket Guide to the Polyvagal Theory: The Transformative Power Feeling Safe*. It is definitely toned down.

In his introduction, Porges explains that he repurposed interviews with clinicians for clinicians—sharing experiences where he was interviewed. He edited them for “completeness and clarity” (xiv) and expanded some for “meaning and clinical relevance” (xv). I will say that I am not a fan of the ‘he said, she said’ format; I do not like reading transcripts as text. I prefer to read a narrative. I found myself skimming and at times completely bypassing the questions, just reading what Porges had to say. And, while I may have missed some context (albeit I did read most of Serge’s comments because I believe he is quite skilled at restatement and validation), it allowed me to immerse myself in what felt most important—what Porges has to say.

The book begins with a detailed glossary of terms (“constructs and concepts embedded in Polyvagal Theory”, (xiv)), then Porges offers a chapter to introduce the science and cultural events taking place when he developed his theory. He also talks throughout the interviews about how PVT evolved.

He notes: *“In writing this book, it is my hope to highlight the important role of feeling safe as an important component of the healing process. From a Polyvagal perspective, deficits in feeling safe form the core*

*biobehavioral feature that leads to mental and physical illness. It is my sincere hope that furthering an understanding of our need to feel safe will lead to new social, educational, and clinical strategies that will enable us to become more welcoming as we invite others to co-regulate on a quest for safety”* (xvi).

### **The Glossary: A to Y**

There is no Z. The final term in the glossary is Yoga and The Social Engagement System. Starting with A, however, there are 32 pages of terminology defined, explained, and synced with page numbers in the book so readers can see the terms in action. I appreciated the clarity. Adaptability was grounded in evolution where “behavior is interpreted as adaptive if it enhances survival, minimizes distress, or influences physiological state in a manner that would optimize health, growth, and restoration” (1). There’s a nod to adaptive behaviors that in fact become maladaptive and how traumatic responses may in fact start out as adaptive but then shift into a maladaptive state.

Porges offers two categories for the autonomic nervous system (ANS): the traditional view and the Polyvagal Theory (PVT) perspective—well worth reading. PVT focuses on the vagus (two different efferent pathways that travel through the vagus, i.e., dorsal nucleus of the vagus and nucleus ambiguus). Porges writes, “In contrast to the traditional model that focuses on chronic influences on visceral organs, Polyvagal Theory emphasizes autonomic reactivity” (page 6).



Retrieved: <http://www.2b-intune.com/images/singing.jpg>

I was surprised to see the inclusion of biological rudeness, something I had not considered and then its impact on the ANS. He also writes about the Listening Project Protocol (currently known as the Safe and Sound Protocol, available through Integrated Listening Systems).

I applaud the inclusion of play. Porges defines it as a “neural exercise’ that enhances the co-regulation of physiological state to promote neural mechanisms involved in supporting mental and physical health” (22). I always remember his example of dogs being able to rough and tumble together, playful without aggression or fear. In turn, I wonder what’s happening in families I meet hiking and their dog(s) either run toward me all wiggly and excited and seemingly happy to greet me, to meet me. I even get soggy doggy kisses on my

hands as I pet them and say hello! Versus what’s up with dogs that gasp for air as their owners hold tight to their leash, the dog straining to lunge toward me, growling, clearly menacing. The situation goes from feeling welcome and safe to my taking a more predatory and defensive stance.

Safety. Part of the S’s is Safety including Safety in Therapeutic Settings. There’s Singing, the Social Engagement System (with a chart), and the Subdiaphragmatic vagus and Supradiaphragmatic vagus.

Did you know that singing provides an opportunity to exercise our entire integrated social engagement system? I didn’t.

Turns out that inhaling and exhaling couples the exercise of turning on and off the vagal brake. When we inhale, vagal influence on the heart is diminished and our heart rate

*Continued on page 36*

increases. Our slower exhalations calm our autonomic state by increasing the impact of the ventral vagal pathways on the heart. Singing also involves neural regulation of the muscles of the face, head, middle ear for listening to music and the muscles of the larynx and pharynx for vocal intonation. I was fascinated by this tidbit and marveled that it was situated rather simply in the glossary.

Yes, the glossary is varied and inclusive. And truly helpful in my mind in a more global sense—understating the pieces leads to a better grasp of the whole.

### **Organization**

Along with the glossary, there are seven chapters, each a revisited transcript from interviews with Ruth Buczynski (chapters 2-5), Lauren Culp (chapter 6) and Serge Prengel (chapter 7).

There are also references, credits, and acknowledgements. Each interview is noted to cover specific topics such as: Polyvagal Theory and the Treatment of Trauma, Self-Regulation and Social Engagement, How Polyvagal Theory Explains the Consequences of Trauma on Brain, Body, and behavior, and so forth. For me, I found the information basically the same but “said” slightly differently; Porges used different examples and stories at times—I loved his use of Peter and the Wolf to explain a better understanding of how sound frequencies (highs and lows) trigger what Porges calls ‘neuroception’. He shares that he does not like using the word perception because it connotes awareness and conscious choice, so

**“One thing that I really admire about him is that he lives his theory. I mean his curiosity, and a quality of interaction that goes hand in hand with being the researcher he is.”**

**Serge Prengel**

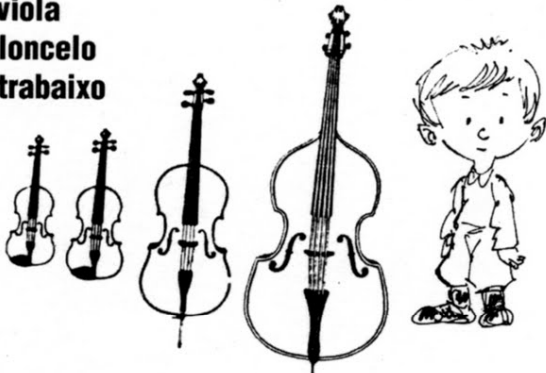
he coined the word neuroception to emphasize that the process is on a neural basis.

Reading the interviews, with the repetition, was, it turns out, a good thing; each time I read, I synthesized more information—I had a clearer understanding and was thus able to absorb more creating a wider base for continued learning.

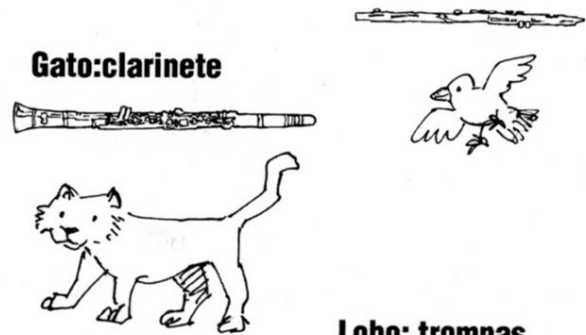
To keep this review readable and not overwhelming, I invite you to experience some of the materials yourself. You can access Serge Prengel’s interview here: <https://relationalimplicit.com/porges-polyvagal/>.

## Estrutura de "Pedro e o lobo" de Sergei Prokofiev (1891-1953)

**Pedro:**  
violino  
viola  
violoncelo  
contrabaixo



**Passarinho: flauta**

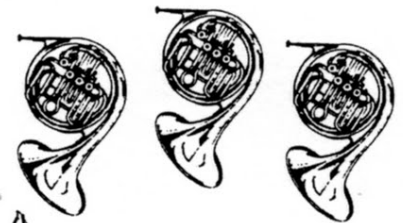


**Gato: clarinete**

**Lobo: trompas**

**Avô: fagote**

**Caçadores:**  
tímpano  
bombo



**Pato: Oboé**



*Willy With Overlin*

Image retrieved from Pinterest: glum.me: <https://www.pinterest.com/pin/829788300066000556/>

And I offer our readers a [PDF of Chapter 1 that you can read by clicking here.](#)

We offer our sincere gratitude to W.W. Norton & Company: Chapter 1 is excerpted from *The Pocket Guide to the Polyvagal Theory: The Transformative Power of Feeling Safe* © 2017 by Stephen W. Porges. Used with the permission of the publisher, W. W. Norton & Company. The following is from the chapter "The Neurobiology of Feeling Safe."

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## A Bit of an Overview

I offer a few thoughts about Chapter 1, then bring the review to a close.

### Chapter 1: The Neurobiology of Feeling Safe

My parents attended Porges' workshop in Berkeley, CA last Fall (September 23-24, 2017). They're diehard Porges' fans, too, and attend way more of his workshops than I. My dad came home talking about safety, and how Porges focused much of his talk, the day they attended on the importance of safety. It was a two-day event, sponsored by Mark Ludwig, and included basic principles, experiential learning, and clinical applications. They told me about Porges' new book, thus my review. So, I was not surprised that the first chapter started with safety and carried the theme throughout the book.

Safety appears to be paramount in our lives, in our work, in our physical and mental health. Yet, Porges points out that a discrepancy exists between the words typically used to describe safety and our bodily feelings of safety (33). He notes the necessity of making changes in our institutions and in our perspectives. The chapter is divided into 11 short sections. I appreciated the information on safety and cues of safety for survival, and then on social engagement and safety. Information such as safety's role in accessing higher brain structures so we can be creative made me pause to reflect, as well, I had to reflect when Porges writes: "For the social

interaction to be mutually supportive and to enable co-regulation of physiological state, the expressed cues from the dyad's social engagement systems need to communicate mutual safety and trust" (49).



Image retrieved from: <https://i.pinimg.com/736x/ec/d8/05/ecd805bc91607a8fea4c178d8ace7f01--bestfriends-dog-cat.jpg>

If one person is sending messages of 'unsafe' or a person is interpreting everything as 'unsafe' or . . . the or's can vary and each situation, each interaction is filtered through our lens of safety versus threatening (unsafe). One cannot truly work with clients without considering their background and what feeling safe means to them. Porges notes that polyvagal theory supports the understanding that feeling safe is dependent on our autonomic state and that cues of safety calm our ANS. This calming enables safe and trusting relationships to develop, which support co-

regulation (behavioral and physiological state)—a domino effect, or in Porges’ words a circle of regulation that defines healthy relationships.

### **In Summary**

According to Porges, “the world of trauma is primarily about bodily responses and reactions” and “that a goal of society is to be able to immobilize without fear” (pg. 222).

I think the following paragraph is paramount for clinicians to read and consider when thinking therapy and PVT:

*. . . “isn’t immobilization without fear really a goal of therapy? You don’t want your clients to remain ‘tightly wrapped,’ anxious and defensive. You want your clients to be able to sit quietly, to be embraced without fear, to be hugged and to hug others, to conform physically when embraced, and to be reciprocal in their relationships. If a client is tightly wrapped, with tense muscles and in a highly activated sympathetic nervous system state, the client is conveying this state of defensiveness to others. A state characterized by tense muscles and sympathetic excitation is an adaptive state that prepares an individual to move or fight. This state unambiguously conveys to others that it is not safe to be in close proximity to this person” (pg. 222-223).*

There is much to be gained by experiencing the PVT both cognitively and bodily for one’s life and one’s professional growth. Porges’ *Pocket Guide* offers readers entrance into and guidance through the Polyvagal Theory and how it has revolutionized our field of study and our concepts of clinical

interventions.

**Stephen W. Porges, PhD**, is Distinguished University Scientist at Indiana University, where he directs the Trauma Stress Research Consortium within the Kinsey Institute. He holds the position of Professor of Psychiatry at the University of North Carolina and Professor Emeritus at the University of Illinois at Chicago and the University of Maryland. He served as president of both the Society for Psychophysiological Research and the Federation of Associations in Behavioral & Brain Sciences and is a former recipient of a National Institute of Mental Health Research Scientist Development Award. He has published more than 250 peer-reviewed scientific papers across several disciplines including anesthesiology, biomedical engineering, critical care medicine, ergonomics, exercise physiology, gerontology, neurology, neuroscience, obstetrics, pediatrics, psychiatry, psychology, psychometrics, space medicine, and substance abuse. In 1994 he proposed the Polyvagal Theory. The theory provides insights into the mechanisms mediating symptoms observed in several behavioral, psychiatric, and physical disorders including autism, anxiety, depression, ADD, PTSD, and schizophrenia. His research has led to the development of innovative interventions designed to stabilize behavioral and psychological states and to stimulate spontaneous social behavior that are being applied to autism and other clinical diagnoses.

### **References**

- Porges, S. (2017). *The pocket guide to the polyvagal theory: The transformative power of feeling safe*. New York: W. W. Norton & Company.
- Porges, S. (2009). The polyvagal theory: New insights into adaptive reactions of the autonomic nervous system. *Cleveland Clinic Journal of Medicine*, APR 76(Suppl 2), S86-S90. doi:10.3949/ccjm.76.S2.17