

# A Neurodiversity Paradigm Lens on Polyvagal Theory



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People keep asking me how the Autistic community views polyvagal theory. Right now, I can't speak for the community's perspective. People are just now learning about the theory, so we don't have any consensus data from the Autistic community about agreement or disagreement. I can, however, speak for myself as an Autistic researcher and educator.

I am writing this essay to share my personal agreement and disagreement with polyvagal theory and how I have seen these concepts applied in the mental health world for neurodivergent people. My opinions are informed by

the writers who developed the Neurodiversity Paradigm: Judy Singer, Kassiane Asasumasu, Nick Walker, and others.

### **Agreement with the core concepts of polyvagal theory (PVT)**

The 3 core concepts of PVT remain foundational to my understanding of the nervous system. These core ideas are:

1. The Autonomic Nervous System (ANS) has 3 neural circuits that each have physiological, mental, and emotional effects in the body. They are the ventral vagus nerve, the dorsal vagus nerve, and the sympathetic spinal chain.
2. The body determines which neural circuits to activate through the process of Neuroception (the subconscious sensing of danger or safety in our internal and external environments).
3. Co-regulation (the subconscious process of syncing up with a coherent nervous system) is the strongest safety cue for mammals.

Neurodivergent people are not outliers where these 3 facts are concerned. While neurodivergents do have some significant neural differences from neurotypical people (mostly increased neural connections and increased electrical activity), our nervous systems operate on these same three principles.

There are some who would claim that neurodivergents don't have the same 3 neural circuits, that our neuroception is broken, or that we can't co-regulate, and I find this perspective to be rather dehumanizing. The polyvagal understanding of the nervous system seems to be observable in all humans, and all mammals for that matter, including cats, dogs, and horses.

### **Disagreement with some of Porges ideas**

That said, there are some details of polyvagal theory beyond these 3 core ideas that I have strong disagreement with.

Throughout the literature on PVT, I have encountered the idea that autism is equivalent to a deficit of function of the social engagement system and that restoring function to the ventral vagus nerve will treat or cure autism symptoms. While this idea is claimed to be a reframe on autism, it is simply another way to pathologize Autistic people.

Many Autistic people do have low functioning of the ventral vagus nerve but this is due to trauma, it is not an inherent trait of our neurotype. The positive changes that Porges and team have documented in Autistic people due to vagus stimulation are because vagus stimulation increases safety and reduces traumatic distress. While I am enthusiastic about PVT being used to support Autistic people in finding deeper levels of safety, any claims to cure, heal, or fix Autism are red flags.

One of the reasons that this deficit assumption is made about Autistic people is because Porges claims that *prosocial behaviors* are the clearest marker of ventral vagus activation. Prosocial behaviors include soft gaze, expressive face, eye contact, smiling, vocal resonance, turning towards others, and comfort with sharing touch. Many of these social behaviors are neurotypical cultural expectations. Additionally, these behaviors do not always demonstrate that a person is feeling safe internally. Neurodivergent people can perform these behaviors while in a trauma response called fawning or masking.

I think that Porges social position as a financially comfortable white male professional makes it difficult for him to understand the fawn response. A number of his statements about fawning have lacked awareness of power

imbalances and how those impact socialization. I find it rather important to point out that we cannot know a person's neural state from external behaviors alone — internal felt sense is a much more accurate way to track neural states.

According to Porges, *faulty neuroception* contributes to many psychiatric conditions. This is the idea that some brains are biased towards detecting danger when there is no real danger. Faulty neuroception is supposedly happening when a person “struggles to respond appropriately to internal or outer stimuli.” When allistic people decide what real danger is or what an appropriate response to stimulus is and then label anything else as faulty, it is incredibly likely that the Autistic sensory reality will be pathologized.

Sensory overwhelm is a real danger to Autistic people. Trauma memories are also real dangers. Autistic reactions to distressing feelings or overwhelming stimulus are biologically appropriate even though they are socially discouraged. Calling Autistic responses *faulty neuroception* can be experienced as gaslighting and invalidation.

I'd much rather see us discussing *highly attuned* or *sensitive neuroception*, when a person's neuroception is incredibly sensitive and thus responsive to stimulus that might not even register for someone else. Sensitive neuroception much more accurately describes how the Autistic brain interacts with the internal and external environment.

The only time I feel it is accurate to talk about *faulty neuroception* is when someone is perceiving safety in a situation that is actually dangerous. Due to social naivete, Autistic people may not pick up on danger signals and may unknowingly put themselves in unsafe situations. It is much less subjective to say a situation was actually dangerous and we did not perceive it correctly

than to say a situation was perfectly safe and we did not perceive it correctly. Safety is far too relative for us to decide what is or is not a safe experience for someone else.

### **Disagreement with mainstream application of the theory**

Ventral supremacy is a big problem. Due to the hierarchical way that the polyvagal ladder is presented, it can be easy to assume that being in ventral social engagement as often as possible is our goal. However, the reality is that our world is dysregulating. Safety is a limited resource in this society. Our bodies evolved to become dysregulated in the face of real stressors. It's okay to be dysregulated some of the time.

Stress responses are adaptive. They only become traumatic when we get stuck in them. Releasing the chaotic energy of sympathetic activation is important. Allowing some space for disconnection and avoidance is important. If we try to prevent these entirely, we interrupt our stress cycle and cause trauma by delaying the completion of the stress cycle until later.

Pathologizing our stress responses or trying to control our nervous system is a danger signal to the body. Autistic people have a higher than average need to release stress from our bodies in physical ways and to spend time in *dorsal rest*, a low-energy safe version of the dorsal shutdown state. Accepting our nervous systems and our responses as they are, rather than forcing ourselves to have a different response than we do, leads to more coherence and better self image.

Polyvagal theory is not a life hack. We can't use PVT as a quick hack to increase productivity or social communication in classrooms or workplaces. Balancing the nervous system doesn't mean that neurodivergent people will be able to show up in neurotypical ways. Improved vagal tone does not

remove the need for flexible work expectations, sensory-friendly environments, and other disability accommodations. We cannot use the social engagement response to get people to do what is culturally normative (sit still, smile at customers, make eye contact, etc).

Co-regulation isn't equivalent to long term safety. Manipulation of the ventral vagus response is one way that cults form. We cannot assume that because a person can regulate our nervous system that they are safe to be in a close relationship with. Neurodivergent people should be aware that some people who understand nervous system science will offer soothing co-regulation in order to get things from us.

### **Moving towards an integrated and holistic model of the nervous system**

While polyvagal theory was my first introduction to nervous system science, I stopped viewing it as the primary lens for the nervous system several years ago. My personal understanding of the nervous system has developed into a holistic one that considers the bigger picture, the individual as part of a network of nervous systems. This integrated model includes the synthesis of the five different existing theories about the nervous system along with contextualization of our biological nervous systems within the social systems of colonization and power-over dominator culture.

If you're interested in further study, the 5 theories about the nervous system are: Polyvagal theory (Porges), Neurovisceral integration model (Thayer, Hansen, Saus-Rose and Johnsen), Biological behavioural model (Grossman and Taylor), Resonance frequency model (Lehrer), and Psychophysiological coherence model (McCraty and Childre, HeartMath Institute). *Credit for bringing this list to my awareness goes to Sarah Schlote, MA, RP, CCC, SEP.*

Though typically not mentioned in studies of the nervous system, the context of colonialism and power-over culture is essential to understanding the mechanics of the modern human nervous system. The social systems that we have built are collapsing and the lack of a social safety net is impacting more and more people. We are all traumatized to some extent. Global warming, a pandemic, all of the -isms — these are danger signals to the body and it is very human to have overwhelming stress responses to these things. To ignore these aspects of our reality in the conversation about the nervous system would be a dire mistake.

So in closing, I want to share a few important questions I keep asking myself:

What is the purpose of learning about nervous system science?

Are we using it to support the status quo or to liberate each other from harmful systems of power?

Are we learning about our bodies to control them or to accept them?

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*Janae Elisabeth, Autistic researcher and educator, has created a collection of infographics about the nervous system. They are free to view here: [linktr.ee/TraumaGeek](https://linktr.ee/TraumaGeek). Professional Patrons get the entire collection of Trauma Geek graphics: [www.Patreon.com/TraumaGeek](https://www.Patreon.com/TraumaGeek)*



