**A Beginner’s Guide to Polyvagal Theory**

AUTONOMIC NERVOUS SYSTEM



PARASYMPATHETIC SYMPATHETIC



Ventral Vagal Dorsal Vagal **Mobilization/Fight/Flight**



**Social Engagement Rest and Digest (low tone)**

**Immobilization/Freeze (high tone)**

The Polyvagal Theory, developed by Dr. Stephen Porges, identified a biological order of human response that is active in all human experience. This handout explores and explains Polyvagal Theory in user friendly language.

We come into the world wired to connect. With our first breath we embark on a lifelong quest to feel safe in our bodies, in our environments, and in our relationships with others. The autonomic nervous system is our personal surveillance system, always on guard, asking the question “is this safe?” Its goal is to protect us by sensing safety and risk, listening moment by moment to what is happening in and around our bodies and in the connections we have to others.

This intent listening happens far below the thinking parts of our brain and far away from our conscious control. Dr. Porges, who understood that this is not an awareness that comes with perception, coined the term “neuroception.” Neuroception describes the way our autonomic nervous system scans for cues of safety, danger, and life-threat without involving the thinking parts of our brain. Since we humans are meaning-making beings, what begins as the wordless experiencing of neuroception drives the creation of a story that shapes our daily living.

**Two Branches...Three Pathways**  
Our autonomic nervous system has three modes of responding:

1. Being safely engaged and socially connected; resting and digesting
2. Energized to mobilize in response to danger (fight/flight)
3. Shutting down, collapsing or freezing when it seems escape from danger is not possible

The autonomic nervous system is made up of two main branches; sympathetic and parasympathetic. The parasympathetic branch is further divided into two pathways giving the autonomic nervous system, in total, three pathways of possible response. Through each of these pathways we react “in service of survival”.

The sympathetic branch is found in the middle part of the spinal cord and prepares us for action. It is this system that is on the lookout for cues of danger and triggers the release of adrenaline that fuels fight or flight.

In the parasympathetic branch we find the remaining two pathways with a nerve called the vagus. Vagus, meaning wanderer, is aptly named. From the brain stem at the base of our head, the vagus travels in two directions; down through our lungs, heart, diaphragm, and stomach and upwards connecting with nerves in our neck, throat, eyes, and ears.

The vagus is divided into two parts; the ventral vagal pathway and the dorsal vagal pathway. The ventral vagal pathway and the lower dorsal vagal pathway support feeling safe and social, as well as being able to rest and digest. When we feel comfortable and connected our ventral vagal system is online and in charge. On the other hand, the high dorsal vagal pathway responds to signals of extreme danger. It takes us out of connection, out of awareness and into a protective state of collapse. When we feel frozen, numb, or “not here” the high dorsal vagal system has taken control.

Dr. Porges identified a hierarchy of response built into our autonomic nervous system anchored in the evolutionary development of our species. The roots of the dorsal vagal pathway lie with our reptilian ancestors. The sympathetic nervous system, next to develop, is represented in the darting movements of fish. The most recent addition to our evolution, the ventral vagal pathway, is unique to mammals.

When we are firmly grounded in our ventral vagal pathway, we feel safe and connected, calm and social. A sense (neuroception) of danger can trigger us out of this state and backwards on the evolutionary timeline into the sympathetic branch. Here we are mobilized to respond and take action. Taking action can help us return to the safe and social state. It is when we feel as though we are trapped and can’t escape the danger, that the dorsal vagal pathway pulls us all the way back to our evolutionary reptilian beginnings. In this state we are immobilized. We shut down to survive. From here it is a long way back to feeling safe and social and a painful path to follow.

Safety and connection are guided by the newest part of the autonomic nervous system. Our social engagement system is active in the ventral vagal pathway of the parasympathetic branch, sometimes nicknamed the smart or social vagus. In this state our heart rate is regulated, our breath is full, we take in the faces of friends, we can tune into conversations and tune out distracting noises. We see the “big picture” and connect to the world and the people in it. I might describe myself as happy, active, interested and the world as safe, fun, and peaceful. From this ventral vagal place at the top of the autonomic ladder, I am connected to my experiences, and can reach out to others. Some of the daily living experiences from this state include being organized, following through with plans, taking care of myself, taking time to play, doing things with others, feeling productive at work, a general feeling of regulation, and a sense of management. Health benefits include a healthy heart, regulated blood pressure, a healthy immune system decreasing my vulnerability to illness, good digestion, quality sleep, and an overall sense of wellbeing.

(Adapted from Deborah Dana, LCSW 2015)