



Autism &

Trauma





Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens
A Framework to Inform EMDR and Sensorimotor Psychotherapy Interventions in TherapySelf-Compassion
Sean Inderbitzen, APSW, MINT

Of course it cannot be said that “@geeoharee”’s belief is 100% true in reality, but still ... we do have to wonder how close to the truth this statement comes.

“Not everyone benefits from CBT. So, people like me with ASD and trauma do not like CBT, which often leaves us without resources for therapy.”

(“CBT” is Cognitive Behavioral Therapy, and “TF-CBT” is Trauma Informed CBT)




Autism Trauma and PTSD (Post Traumatic Stress Disorder) - What's The Overlap?

 Autism From The Inside
411K subscribers



 16K



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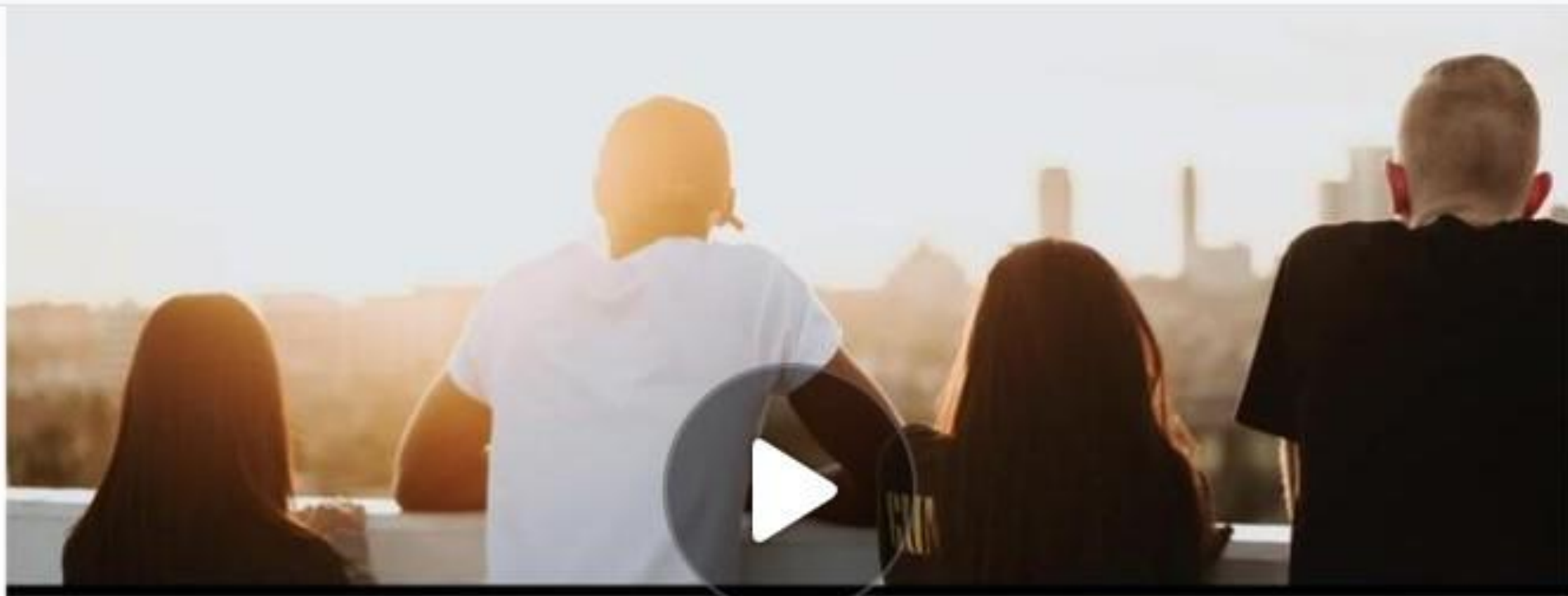
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<https://ohioemploymentfirst.org/the-journey-a-suite-of-resources/Autism-and-Trauma>

Video: Autism and Trauma



The **Journey** Shortcuts

Autism and Trauma



Lessons from a late in life autism discovery | Patrick Casale | TEDxManitouSprings

“One study showed that **41%** of people who died by suicide in England were Autistic or had Autistic traits.”

Dr. Megan Neff: “The soul yearns for connection, but the [ASD] body yearns for isolation.”

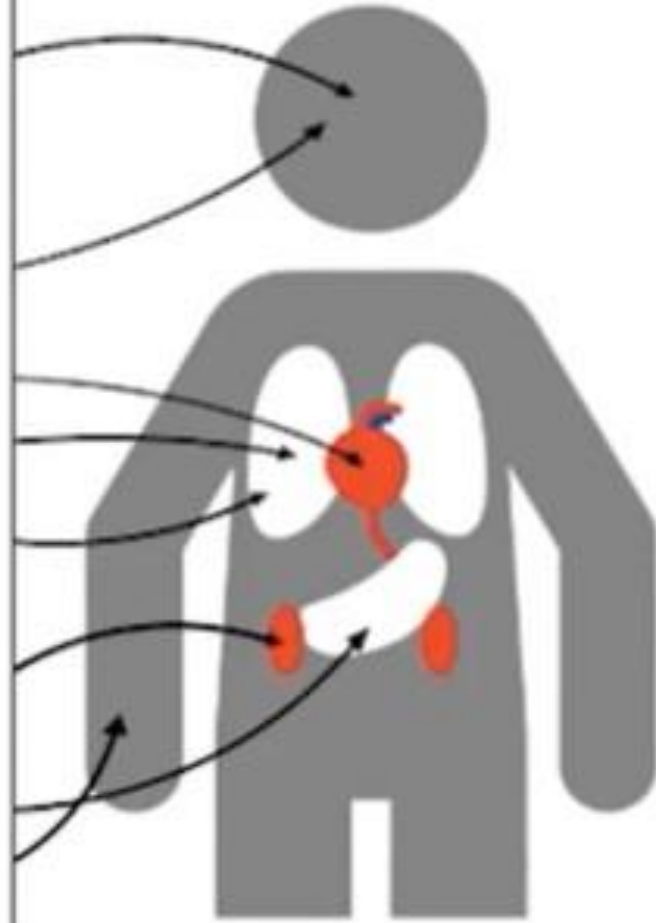
Patrick notes, regarding Dr. Neff’s statement, that “No truer words about my Autistic experience have ever been spoken.”

I also have a friend who didn’t discover he was Autistic until he was 60 years old. Back in the early days of our friendship I literally remember wondering why “Jerry” was so pushy, couldn’t seem to “take a hint,” didn’t know when to stop *telling* you what you should do, and didn’t even know that he didn’t understand body language and tone of voice. Now I know why! ... oh, and now he’s also a millionaire, I’m pretty sure.

"FIGHT OR FLIGHT"

ACUTE STRESS RESPONSE

- Increased blood pressure
- Increased blood flow to brain
- Dilation of pupils
- Bronchial dilation
- Increased blood flow to extremities
- Slowing of digestion
- Increased production of neurotransmitters, stress hormones, and catecholamines



- Increased breathing
- Increased heart rate
- Heightened senses
- Hypervigilance
- Increased perspiration
- Decreased production of saliva
- Increased blood flow to skin
- Changes in body temperature
- Improved short-term memory
- Increased alertness

From a lecture entitled, *Dissecting the Brain-Gut Connection to Address Sensorimotor Concerns for Children with Autism*, by Dr. Varleisha Gibbs PhD, OTD, OTR/L, ASDCS

Chronic stress responses in the body, including inflammation, might explain why so many ASD people have **chronic GI problems**.

While the body is focused on increasing production of neurotransmitters in the brain and gut, as well as adrenaline and cortisol in addition to catecholamines during times of stress, this means that the body **is not able to also be nurturing** the increase of good bacteria in the gut at the same time.

Clinical Symptoms - Trauma

From a lecture entitled, *Dissecting the Brain-Gut Connection to Address Sensorimotor Concerns for Children with Autism*, by Dr. Varleisha Gibbs PhD, OTD, OTR/L, ASDCS

Now, imagine not being able to verbalize these experiences in any meaningful way because of one's Autism-based limitations!

The clinical symptoms of PTSD span across four main categories of symptoms (APA, 2013):

Intrusive thoughts and repeated memories, dreams, or flashbacks of the traumatic event. These symptoms present challenges to various areas of life such as sleep hygiene, social interaction, and caring for oneself and others.

Avoidance of reminders of the trauma. This may involve avoiding people, places, activities, and certain interactions that can lead to unwanted memories including physical sensations reminiscent of the trauma.

Negative thoughts and feelings. Symptoms can include, negative self-appraisal, loss of interest in things previously enjoyed, Shame, blame, loss of memory related to the trauma, isolating oneself from other people.

Hyperarousal. Exposure to trauma leads to lack of concentration, challenges modulating arousal levels, hypervigilance, impulsivity, aggression and difficulty sleeping.

ASD, Trauma, & Biologically-Based Fear Responses:

www.findinghopeconsulting.com/general-6

There hasn't been much research on the interactions between trauma and ASD. Suffice to say, people with ASD are impacted by trauma and can develop PTSD, although an ASD person's expressions of trauma might look different.

First, here are the Sympathetic Nervous System's five automatic responses to trauma:

- Flock
- Fawn
- Fight
- Flight
- Freeze

Potentially, an ASD person can react in any/all of these ways. However, **Flocking** does require a sense of social connection with individuals they would be inclined to flock to under stress; and **Fawning** requires that the victim sees their abuser as being a person ... in other words, an abuse victim would never engage in fawning behavior if their abuser was an animal or a robot.

"Hidden Resilience"



Biologically Based Fear Responses

Explore below to gain insight on how people respond to trauma, and what you can do about it.



Aggression

Hidden Resilience:
Action and a Drive for Justice



Defiance

Hidden Resilience:
The Courage to Challenge Power Over



Food Issues

Hidden Resilience:
Focus and Comfort



Hoarding of
Objects

Due to Loneliness
Hidden Resilience:
Memory and Seeing Connections



Ever watch the **Hoarders** TV show? Well, almost every one of those people became clinically depressed and started hoarding only after a spouse or other loved one died – i.e., traumatic grief was the impetus!

The last slide and this one both show images of topics you can click on at www.findinghopeconsulting.com/general-6. When you click on an image, you'll be taken to a page that describes, regarding the chosen behavior:

- Hidden Resilience
- Is Learned When
- The Drive Behind the Behavior
- Steps to Take to Meet Those Needs

For example, regarding Aggression:

- How aggression represents a person's hidden strength/resilience is that aggression shows they're willing to take action, and it also represents their drive to seek justice and make things right.
- Aggression is learned when people are not protected and when people come from experiences where the safest person in the room is the most violent person in the room, because they are the only one not getting hurt.
- The drive behind aggression is/are: Feeling cheated, treated unfairly, sad, worried, or afraid.
- Steps to Take: Show them you're taking slow, deep breaths, continuing until the tension breaks; Use the safety script for limit-setting; Replace "Calm down" with, **"How can I help you feel safe?"**



Lying

Due to Fear of Punishment

Hidden Resilience:

Determination & Creativity



Lying

Due to Trying to Meet a

Perceived Need

Hidden Resilience:

Determination & Creativity



Lying

Due to Trying to Solve a

Problem

Hidden Resilience:

Determination & Creativity



Manipulation

Hidden Resilience:

Resourcefulness



Stealing

Hidden Resilience:

Strategy



Unsafe Sexual Behavior

Hidden Resilience:

Agency & Nurturance

The Neuroscience of Safety:

The Transformative Impact of the Polyvagal Theory on Supporting Children on the Autism Spectrum

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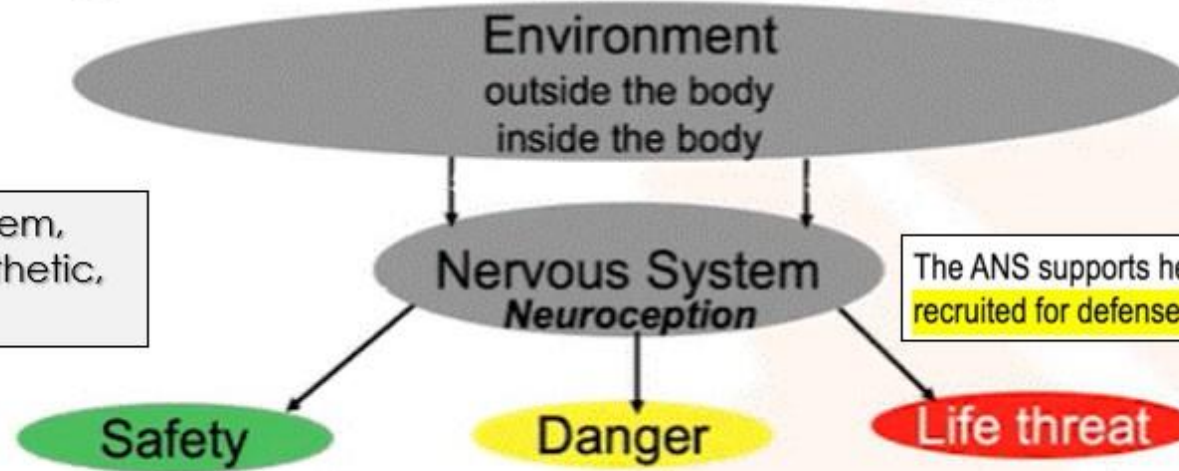
Professor Psychiatry, University of North Carolina

In other words, NO human being can be expected to **efficiently and skillfully problem-solve, learn, multi-task, communicate with others, or take care of others** when their own Autonomic Nervous System is **IN** Fight-or-Flight mode.

Health and Social Consequences of Disrupting Autonomic Function

- The ANS supports BOTH social engagement behaviors and health, growth, and restoration **ONLY** when not recruited for defense. - i.e., it's an either-or proposition; the ANS can't support both at the same time.
- Our job as parents, educators, and therapists is keep our children, family, friends, and colleagues out of states of prolonged threat!

The Quest for Safety: Emergent Properties of Physiological State



The "ANS" is the Autonomic Nervous System, which is comprised of the Vagal, Sympathetic, and Parasympathetic systems.

The ANS supports health, growth, and restoration **ONLY** when not recruited for defense.

Spontaneously engages others
eye contact, facial expression, prosody
supports visceral homeostasis

Defensive strategies
fight/flight behaviors (mobilization)

Defensive strategies
death feigning/shutdown (immobilization)

Features of Autism

"**Neuroception** is the detection of risk or danger without conscious awareness" – i.e., the body is both detecting danger and reacting to it without the person being consciously aware of either the danger or their autonomic reactions ['Neuroception' is Dr. Porges' made-up word for this topic].

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Neuroception

- The neural evaluation of risk without conscious awareness.
- A reflexive mechanism capable of instantaneously shifting physiological state.
 - Reactions to threat cues are processed via neural circuits shared with our phylogenetic vertebrate ancestors... **BUT!**
 - **Reactions to safety cues are uniquely mammalian.**
- Physiological state biases neuroception.

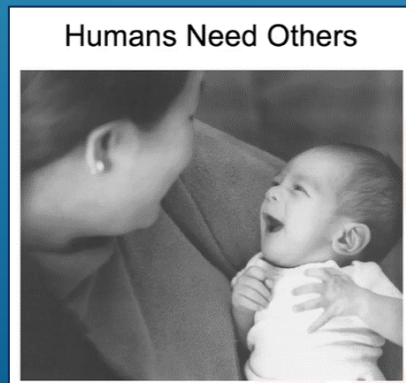
Dr. Porges: When kids start to benefit from **SSP**, "It's as if the child is getting used to being in a body that is now more **exploratory and more interested in**" sensory and social activities that used to be automatically screened-out ... including trying foods that also used to be rejected for various sensory reasons.

... in other words, if you can activate the **Ventral Vagal Complex (VVC)**, you can jump-start, activate, and prompt the **Social Engagement System**, which is tantamount to basically **turning off defensive reactions** almost instantaneously – i.e., if you do that, you are, by definition, activating the Parasympathetic N.S. which is responsible for the Rest, Restore, & Recover cascade of responses.

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“The Autistic individual is **locked into a physiological state** that **supports defense reactions** such as fight-or-flight or withdrawal. [Therefore] if we can trigger [those parts of] the neural system that are related to social engagement and being calmer, then the **emerging properties of that [new] state** are to be more social [as well as to be more **calm, grounded, and regulated** ... as opposed to being irritated, angry, verbally assaultive, losing control of one’s body, or physically assaultive]. But in many situations, people with Autism have difficulty **feeling safe enough to [even begin to]** co-regulate with another person [even though] the body [actually] *needs* to co-regulate biobehavioral states through engagement with others” ... plus, “Our neurological state biases how we respond to the world.” If you’re in a CONSTANT state of overwhelm, sensory pain, and feeling like the world is attacking you, can anyone blame you if you’re chronically grumpy, irritable, defensive, rude, reactive, etc.??????



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Danger → Dissolution

Structure	Function	VVC	SNS	DVC
Head	Communication	+		
Limbs	Mobilization		+	
Viscera	Immobilization			+

In other words, the body **first** tries to handle a threat/danger by communication, which is managed by the **Ventral Vagal Complex (VVC)**; when that doesn't work, **secondly** it moves to the activation of the **Sympathetic Nervous System (SNS)** via Fight/Flight/Freeze/Flock/Fawn/Faint mechanisms; then if none of those strategies work, **thirdly**, the **Dorsal Vagal Complex (DVC)** takes over ... by which time all the body has left to do is to try to go invisible by shutting down, collapsing, and becoming immobilized. This is an **intensity** of "Freeze" response that is sourced more deeply in the ANS than the Sympathetic system's "Freeze" response. Besides, for some people, their SNS is prone to fighting or fleeing more than freezing. By the time you get to the DVC's version of "Freeze," you've basically given up entirely.



Consider: How many kids have, after chronic exposure to toxic adults (including professionals), become completely shut-down? Being told they are "refusing" to engage (negative label) only reinforces their DVS's attempt to make the child invisible to their "attackers."

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Shifts in Autonomic State

Frequently Observed in Autism

These Shifts:

- Distort social awareness
- Displace social engagement behaviors with defensive reactions
 - fight/flight
 - immobilization (dissociation)
- Interfere with healthful reciprocal “co-regulation” of state
- Lower threshold to express disruptive behaviors in the classroom

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“Research into the Vagus Nerve complex indicates that **the neurology of the face is linked to the neurology of the heart**. We can literally read the visceral/autonomic state of a person by listening to their voice. If the voice is more melodic/prosodic, they’re in a state of Vagal regulation; but if their voice lacks that intonation, then that person’s **Vagal/parasympathetic system** is **offline** ... they’re dysregulated and feeling unsafe” ... which, in turn, triggers the heartrate to increase and triggers cortisol, adrenaline, etc., too.

The Face-Heart Connection:

- At birth mammals have bidirectional neural communication between the **face** and the **heart** (suck-swallow-breathe-vocalize), which forms the core of a Social Engagement System.
- Metabolic demands, perceived danger, life threat, and illness **retract** the Social Engagement System resulting in a **face that is not "social"** and a **physiological state (removal of the vagal brake on the heart) that promotes defensive behaviors**.
- The face and voice reflect autonomic state.
- Early features of children on spectrum?



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Co-regulation: Phase I Face-to-Face Behaviors

- Facial expressions
- Gestures
- Prosodic vocalizations

The term **prosodic** refers to elements of speech that encompass **variations in pitch, loudness, tempo, and rhythm**, which influence the conveyance of meaning and emotion in spoken language. It is connected to the patterns of sounds and rhythms, particularly in poetry and spoken discourse. In essence, prosodic features help distinguish vocal patterns and enhance communication. [vocabulary.com](https://www.vocabulary.com/dictionary/prosodic)

(**Prosodic elements** are **lacking** in ASD people whose ANS is in a constant state of alarm/defense).

Co-regulation: Phase II Physical Contact While Immobilizing Without Fear

- Maintains a physiological state that supports health, growth, and restoration.
- Optimizes the ability to rest, relax, sleep, digest, and perform bodily processes.
- Enables moments of intimacy with feelings of trust, safety, and love. (instead of fear)
- Does not require face-to-face interactions.
- A challenge for individuals with autism?
 - Requires turning off threat reactivity.
 - Requires feeling safe (calm autonomic nervous system).



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Consider: Your ASD child, just like any child, can and will “**read**” you **emotionally**. If you are emotionally dysregulated, your dysregulation will spill over onto them subconsciously. Their “**mirror neurons**” will get activated in the same emotional direction as yours. Therefore, it’s important to realize that, sometimes, an ASD child’s biggest problem isn’t their own ASD symptoms, per se, it’s their **sensitivity to others’ negative emotional states**. This isn’t about blame, but it is about awareness.

Horses are prey animals and are known for being easily startled, especially when exposed to new situations, people, sounds, smells, etc. If you approach a horse and you yourself are in an irritable mood, are emotionally dysregulated, are angry, or are otherwise just full of anxiety or other negative emotions, a horse will pick up on those things and will immediately distrust you or, if they don’t move away from you, might nip at you or intimidate you to get you to move away from them. Research has shown, however, that if a horse is emotionally dysregulated, and a person comes into their area who is at peace, is moving their body calmly/smoothly, and is emotionally regulated, the dysregulated horse will start to benefit from that person’s calm state. Soon, the horse will become emotionally regulated just by being in that person’s presence. This has to do with “**mirror neurons**” in both mammals’ brains, resulting in “**reciprocal regulation.**” In other words, **just as fear can spread, so can calmness, safety, and feelings of security.** Babies in the womb will mirror their mother’s calmness or fearfulness, too!

Polyvagal Theory: An Optimistic Perspective

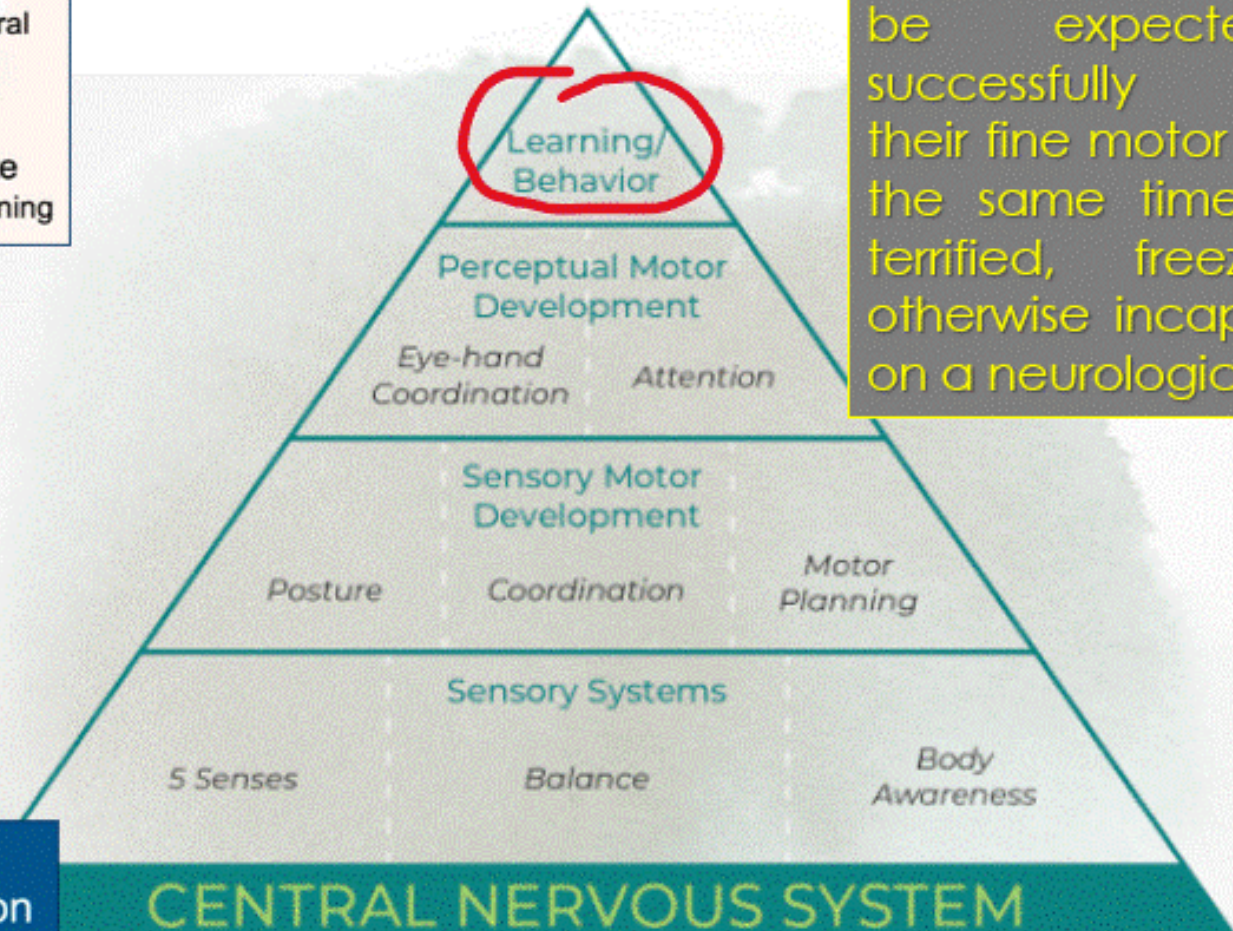
- Polyvagal Theory makes novel assumptions of mechanisms driving features
 - Assumes atypically 'tuned' autonomic nervous system mediates several behavioral features associated with autism.
 - Provides an optimistic strategy to reduce symptoms by 'retuning' the autonomic nervous system as a preferred portal for treatment.
- Polyvagal Theory leads to new tools to 'retune' autonomic state
 - Enhancing emotion regulation, spontaneous social behavior, and learning

Higher brain functions, such as learning and behavior are dependent on how well we're able to process incoming information at the sensory and motor levels.

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PYRAMID OF LEARNING

Fig. 1 Pyramid of Learning²

Example: No person, especially a child, can be expected to successfully engage their fine motor skills if, at the same time, they're terrified, freezing, or otherwise incapacitated on a neurological level.

"Unyte" is the name of the app that is used by/for Dr. Porges' "Safe & Sound Protocol" (SSP).

unyte

The Safe & Sound Protocol:

<https://www.ssptherapy.org/safe-and-sound-protocol-subscription>

YouTube

Search

So this auditory input allows our nervous system to be receptive to cues of safety and to **downregulate** defense.



2:22 / 1:06:18

What is the Safe and Sound Protocol? >

From Sound to Safety: Understanding the Safe & Sound Protocol with Dr. Porges and Karen Onderko



Justin Sunseri
15.3K subscribers

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The Safe and Sound Protocol

The Safe and Sound Protocol (SSP) is a listening therapy designed by Dr. Stephen Porges based on research that is now known as the Polyvagal Theory.

The SSP works alongside other therapeutic approaches and modalities, and can help individuals with trauma, anxiety and depression, sensory processing and other neurodevelopmental differences.

[Watch Video](#)

[https://learn.unyte.com/hubfs/eBooks%20\(scored%20%2B10\)/e-book-effective-processing-and-regulation.pdf](https://learn.unyte.com/hubfs/eBooks%20(scored%20%2B10)/e-book-effective-processing-and-regulation.pdf)



<https://integratedlistening.com/ssp-product-v2/>

What is the **Safe & Sound Protocol**? The safe and sound protocol and we call it SSP is a evidence-based and non-invasive therapy that involves listening to music that has been filtered to prioritize the frequencies of human voice.

The Integrated Listening System

The Integrated Listening System (ILS) was developed with Ron Minson, MD, and is used to improve brain function through brain and body integration via multisensory input.

The ILS can be used in-person or at home, using specially filtered music combined with fun movement activities and, when ready, cognitive challenges to further activate brain networks.

[Learn more](#)



(These are three different but complimentary trainings that therapists can participate in, through <https://integratedlistening.com/store/> - based on the Polyvagal Theory of Dr. Steven Porges - to help their clients, including clients with Autism, learn to self-regulate their chronically dysregulated nervous systems).

Safe and Sound Protocol (SSP) Subscriptions

See the lasting benefits of nervous system regulation in your clients.

[Learn more](#) →

PURCHASE NOW:

[Annual Subscription with Training](#)
– Pay Monthly

[Annual Subscription with Training](#)
– Pay Annually

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Integrated Listening System (ILS) Subscriptions

Formerly the Focus System.
Improving function and skill building through multi-sensory input. [Learn more](#) →

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Rest and Restore Protocol (RRP) Subscriptions

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<https://integratedlistening.com/porges/>

The next slide gives you information about a practitioner using SSP and RRP, but as a monthly subscription rate that seems less expensive than what Dr. Porges is offering through integratedlistening.com.

**Want to Get Started Within 24hrs? *Message Me to Get an Email with Answers to Common Questions about using SSP & RRP + Links to Start Your Subscription. *Includes both Protocols, Instructions, & Weekly Live Q&As 😊*

<https://www.sspttherapy.org/safe-and-sound-protocol-subscription>

Use The Safe and Sound Protocol to Calm Stress, Anxiety, CPTSD, & Reprogram How Your Body Is Naturally Responding to Life!

Why the Safe and Sound Protocol + Nervous System Regulation Works!

Learn how your Nervous System monitors your organs & how your eyes, diaphragm & ears communicate with it to change the way you feel. The Safe and Sound Protocol Music uses this connection with your Middle Ear Muscles to change the old programming of your Autonomic Nervous System into the calm regulated state your body is meant to be functioning in.

[Get Started](#) or [Book Your Free Consultation](#) 📍



(See slides from the lecture given by **Dr. Steven Porges**. SSP is his baby, which started out in the 1990s as *"The Listening Project Protocol: Triggering the Social Engagement System with auditory cues of safety"*).

People Delivering SSP To Children

For people who are delivering SSP to their children, the same categories for caution apply. Parents start the Protocol first because they need to become a super regulator in their lives to give their kid's nervous system something to co-regulate peacefully with no matter what. The course will teach you how to monitor the nervous system so you can do so for yourself & then your children when the time comes. Parents (One or Both) start their SSP listening journey in the included Zoom Session with me. If you feel comfortable monitoring your child at home after you are through your first round with SSP Core then you can start your child at home. If you

Regarding the Safe & Sound Protocol (SSP):



The Engineering of the Safe and Sound Protocol™

- Acoustic cues of safety calm autonomic state and function as a neural exercise of the Social Engagement System that supports the regulation of visceral organs (i.e., promote homeostasis) and social behavior.
- Leverages a neuroception of safety to retune ANS state regulation resulting in an optimized social engagement system with prosocial emergent spontaneous social properties.

their view of autism is that it's hardwired and that's it. And I would say that for some, that may be absolutely true, but I've had children in my laboratory, uh, come in with a complete, or a severe diagnosis autism and with a 70 IQ. And then a month later be normal with 140 IQ. Now it didn't mean that their IQ was raised. They just became testable. So we're underestimating the competence of many individuals with a diagnosis

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Physical restraints that sometimes/often get used with ASD children can possibly be more **traumatizing** than first realized.

Consider:

- Extreme sensory aversion to being touched.
- Extreme fear of change.
- Extreme sensitivity to the negative emotions and yelling of others.
- Already feeling confused in the social context of conflict.
- Then, getting handcuffed at school.

Why Choose Amen Clinics for ASD Diagnosis and Treatment?



In addition to understanding an ASD patient's brain pattern, the use of SPECT imaging at Amen Clinics provides additional benefits. Adults and children with autism spectrum disorder often struggle with other mental health conditions, such as attention deficit hyperactivity disorder (ADHD), **depression**, and **anxiety** as well as medical issues like epilepsy, gastrointestinal problems, and sleep disturbances. **According to a growing body of research, over 70% of children with autism spectrum disorder have other co-existing medical conditions or psychiatric disorders, and more than 40% have two or more such conditions.** SPECT imaging can reveal the presence of other brain problems so that a targeted autism treatment plan can be developed to address all the issues affecting you or your child. The **sooner** a child with this condition receives autism spectrum disorder treatment, the more effective it will be. Early diagnosis and intervention can help with a child's development overall and decrease symptoms as your child grows up. It's important to know that adults with ASD can benefit from autism treatment options too.

Given the high percentage of ASD individuals who have SPD or simply have problematic sensory sensitivities, how many of them have been **TRAUMATIZED** by things that neurotypical people are able to process as having been a "bad experience" but not having been traumatic??

Also, **what if things that ASD people experience as being traumatic are repeated over and over by neurotypical caregivers who have no clue of the impact their behaviors are having on them?**

Treating Trauma in ASD People Using EMDR (Eye Movement Desensitization & Reprocessing):

Social Stories

-originally created by Carol Grey

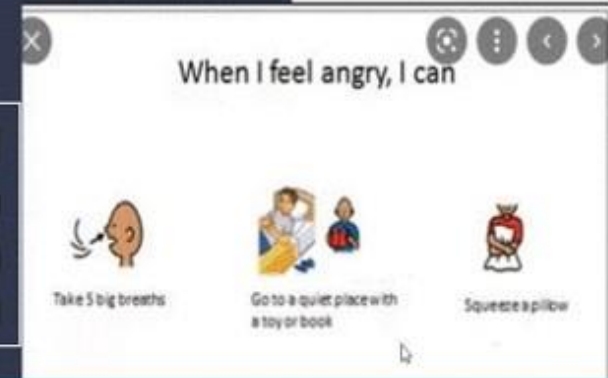
-Two studies found that people living with ASD and PTSD experienced a **decrease in symptoms** following treatment with EMDR (Kosatka & Ona, 2014,

Mevissen et al., 2017)

-Both studies were case studies with a small sample size, which require duplication to further build the research base for the use of EMDR in this population.

-A third study conducted by Lobregt-van Buuren utilized a larger sample size of 27 and also found that participants experienced a **reduction in symptoms** after being treated with EMDR (Lobregt-van Buuren et al., 2018).

Social Stories are used as a primary medium for communication around the trauma



-A fourth study is being conducted to test the effectiveness of EMDR on pediatric patients (ages 8-17) with ASD through Tulane University School of Social Work, under the supervision of Bruce Thyer, PhD

-Researchers are testing a **modified EMDR protocol**

-Researchers include: Katie Diebhold, Sean Inderbitzen, Christopher Graham, and Marilyn Barges

-EMDR modified protocol is included in today's handouts

-Created by Sherri Paulson, LCSW, EMDRIA consultant

-Includes two primary modifications:

1. Social Stories
2. Tapping

(see next 5 slides)

Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

A Framework to Inform EMDR and Sensorimotor Psychotherapy Interventions in TherapySelf-Compassion

Sean Inderbitzen, APSW, MINT

The New Social Story™ Book

15th Anniversary Edition

CAROL GRAY
SOCIAL STORIES

By Carol Gray

Foreword by Dr. Barry Prizant
Author of *Uniquely Human: A Different Way of Seeing Autism*

New Sections!

- ★ Pre-school Children
- ★ Young Adults

REVISED & EXPANDED!

Over 180 Social Stories™ That Teach Everyday Social Skills to Children and Young Adults with Autism or Asperger's Syndrome, and Their Peers



Social Stories are a social learning tool that supports the safe and meaningful exchange of information between parents, professionals, and people with autism of all ages. The people who develop Social Stories are referred to as Authors, and they work on behalf of a child, adolescent, or adult with autism, the Audience.

CAROL GRAY
SOCIAL STORIES

Social Stories™ 10.4

carolgraysocialstories.com

UNIQUELY
HUMAN

THE PODCAST

Listen to "Interview with Carol Gray: The Queen of Social Stories" to learn more.

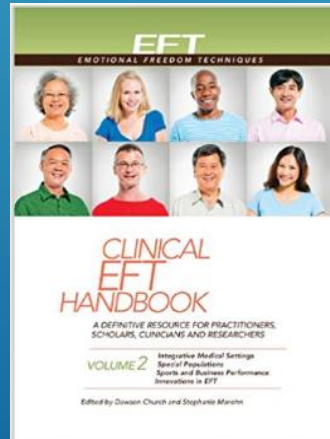
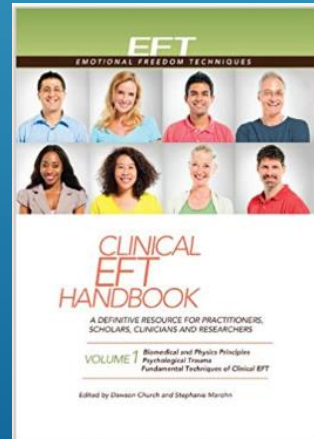
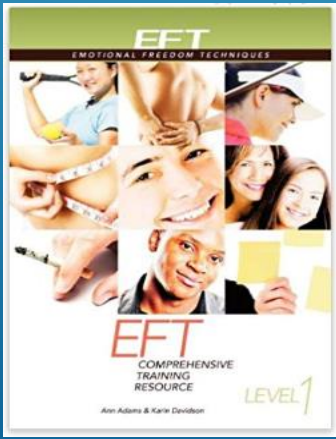
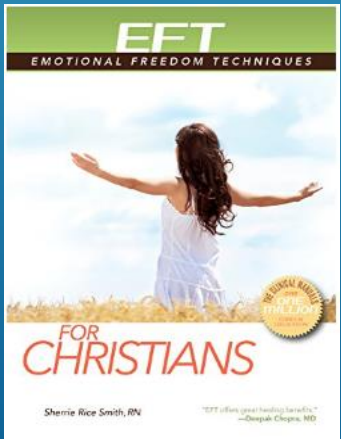
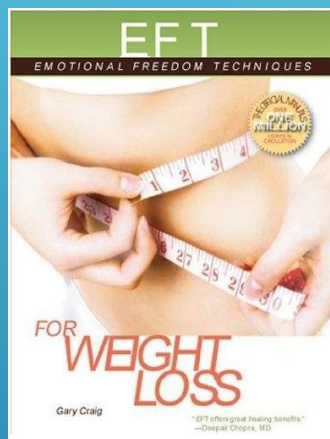
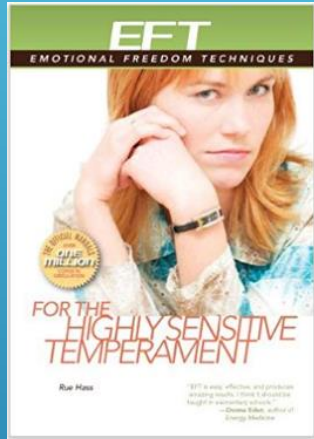
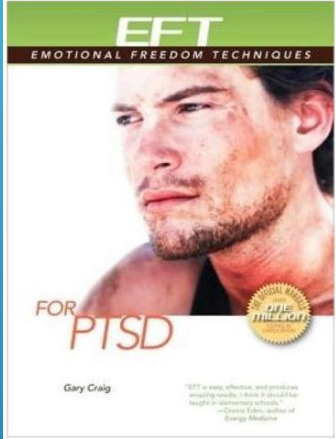
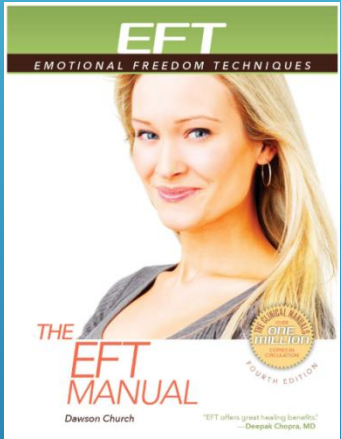


THE EFT MANUALS & EVIDENCE-BASED PRACTICE

("The Tapping Cure")

Most of these EFT manuals cite research studies that support EFT as an evidence-based approach.


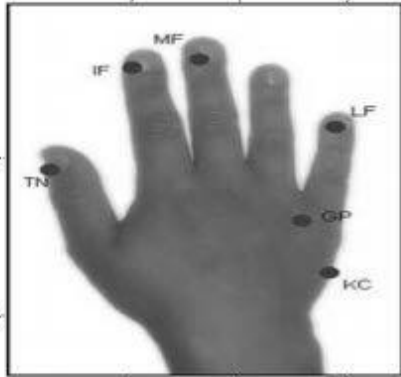
Go onto www.Amazon.com and you will see many other EFT titles as well.



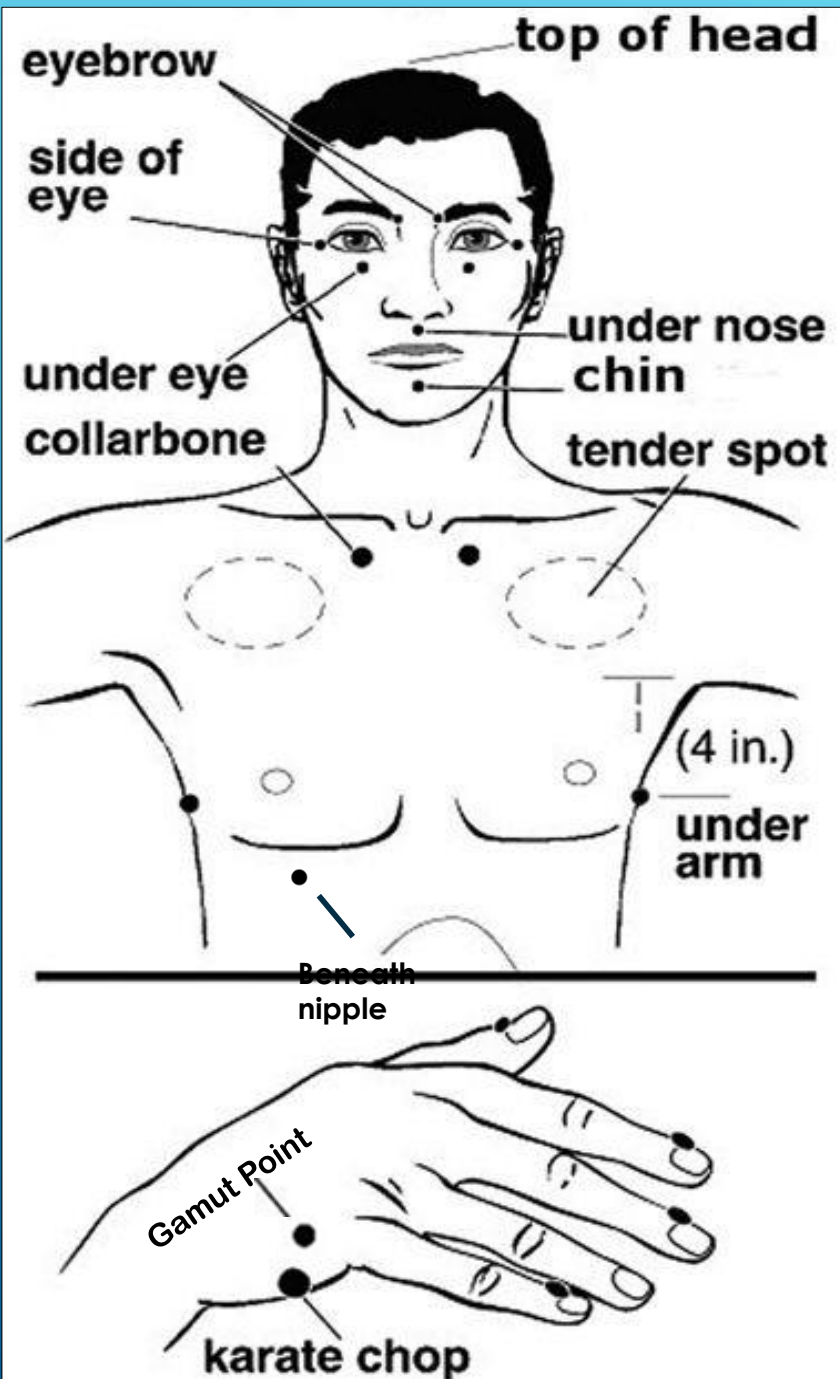
What is Emotional Freedom Technique?

Emotional Freedom Techniques, or EFT, is a self-help method that combines elements of cognitive and exposure therapy with acupressure. Over 200 clinical trials show that EFT is effective for anxiety, depression, pain, PTSD, phobias, and other conditions. Our organization, EFT Universe, pioneered "Clinical EFT," the evidence-based form of the method. EFT is often called "tapping" because when you're feeling stressed, EFT has you tap with your fingertips on your body's acupressure points. This rapidly reduces stress hormones like cortisol and turns off the body's fight-flight response. Try it yourself!

ENERGY MERIDIAN AREAS OF INFLUENCE

Under Arm (UA)	Spleen	Worry, poor concentration, forgetfulness, cloudy thought process, vacillation, addiction, attachment, obsession, gluttony, jealousy, self-pity, strong concern about opinions of others, stubbornness, vanity	Reasoning abilities, memory, a clear thought process, honest introspection, opinion, loyalty, willpower, sense of satisfaction/achievement, ideas & creativity, expressing sympathy	Stomach	
Thumb (Th)	Lung	Sorrow, resentment, anguish, claustrophobia, inflexibility (both mind and body), pessimism, nostalgia	Compassion, good survival instinct, instinct and intuition, free will, individuality, positive outlook, endurance	Large Intestine	
Index Finger (IF)	Large Intestine	Sorrow, resentment, worry, coughing, anguish, claustrophobia, inflexibility (both body and mind), pessimism, nostalgia. Stubbornness, holding on.	Compassion, good survival instinct, instinct and intuition, free will, individuality, positive outlook, endurance	Lung	
Middle Finger (MF)	Pericardium	Sadness, sorrow, grief, self-absorption, coldness, lack of concern, poor relations with others, lack of enthusiasm. Poor sleep habits, hysteria, hysterical or cackling laughter, abnormal emotional responses, hyper-sensitivity.	Love, happiness, contentment, warmth and concern in relationships, enthusiasm.	Triple Warmer involves immune system, flight or fight response, and the body's ability to habituate responses to stress and threat	
Gamut (9G)	Triple Warmer	Unsociable nature, standoffish, lack of humour, prefers isolation to group cooperation, poor decision making abilities, forgetfulness, rambling thoughts.	Sociable nature, ability to work well in groups, platonic friendships, personal warmth, sense of humour, liking for others	Pericardium	
Little Finger (LF)	Heart	Hysteria, erratic behaviour, alternating joy and melancholy, dullness, yearning for love, jealousy, sorrow	Tranquillity, gentleness, emotional balance, spirit, love, integrity, optimism, emotional and spiritual growth, zest for life, control of thoughts and senses, conscience, wisdom	Small Intestine	
Under Breast (UB)	Liver	Anger, depression, impatience, short temper, hatred, jealousy, self-insistence, insecurity, attachment to strong opinions (even when wrong), power-hungry, over ambitious, controlling, cursing and shouting	Drive, planning and starting skills, endurance, good reflexes, perseverance, spiritual enquiry and maintenance, quick and clear intellect, agreeable disposition, organizational abilities, ambition, patience, sense of well-being	Gallbladder	

Speaking of your body's energy system, you've probably heard of something called "Reiki." Well, there's a similar method called **Emotional Freedom Techniques**, or **EFT**. EFT is based on the work of **Dr. Roger Callahan** (founder of **Thought Field Therapy**, or **TFT**) who had a female client who suffered from a lifelong phobia of water. One day he asked her to think about her fear of water and where she was feeling that fear in her body, and then asked her to **tap gently** under her eye (which is an **energy meridian end-point**). Immediately her fear was released from her body and the phobia never came back.



EFT is now recognized as a robust and yet gentle method for use both in therapy and as a self-help tool, and it also falls within the field of study known as Energy Psychology.

You can go to <https://EFTUniverse.com> to learn more:

Unlock the power of advanced energy healing today!

ENROLL FOR FREE

The Enormous Benefits of Tapping Correctly

Doing EFT tapping **correctly** produces **huge benefits in your life** and the lives of those around you. Research shows that Clinical EFT is able to reduce:

- ✓ Anxiety by 40% (Clond, 2015)
- ✓ PTSD in 84% of veterans (Sebastian & Nelms, 2016)
- ✓ Depression by 41% (Nelms & Castel, 2016)
- ✓ Weight by 11 to 22 lbs per year (Stapleton et al., 2014; Church et al., 2018)
- ✓ Pain by 68% (Church & Brooks, 2011)
- ✓ Autoimmune disease symptoms by 33%+ (Brattberg, 2011; Hodge & Jurgens, 2014)
- ✓ Cortisol by 37% (Groesbeck et al, 2018)

Tapping

Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

A Framework to Inform EMDR and Sensorimotor Psychotherapy Interventions in Therapy Self-Compassion

Sean Inderbitzen, APSW, MINT



-Tapping involves the use of bilateral stimulation via a device often referred to as a "Buzzy"

-rather than utilizing the hand motion back and forth, it involves physical devices that stimulate bilateral brain stimulation

-The use of tapping in conjunction with EMDR has also been supported by research findings to decrease PTSD symptoms in adults, however to the knowledge of the authors of this article its effectiveness in decreasing these symptoms in children ■ or in children with ASD has yet to be studied (Javid, et al., 2014).

Shifting gears to Sensorimotor Psychotherapy



Sensorimotor Psychotherapy Institute

...because words are not enough

FYI: Most professional institutes can provide lists of certified practitioners by state or by region.



Sensorimotor Psychotherapy is “a method that draws upon the natural wisdom of the body (posture, movement, and the nervous system) to tap into innate drive in all of us to heal, adapt, and develop new capacities” - **Sensorimotor Psychotherapy Institute**

-Created by Pat Ogden and Ron Kurtz of Hakomi Method

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“You can’t treat trauma with OT. Sensorimotor Psychotherapy is very different from what [OTs] do in the work of Interoception. It takes [a therapist] 90-plus hours to become certified in Sensorimotor Psychotherapy Level One to learn how to talk with people about their body.” In other words, OTs need to be careful, as this is a **Scope of Practice** issue.

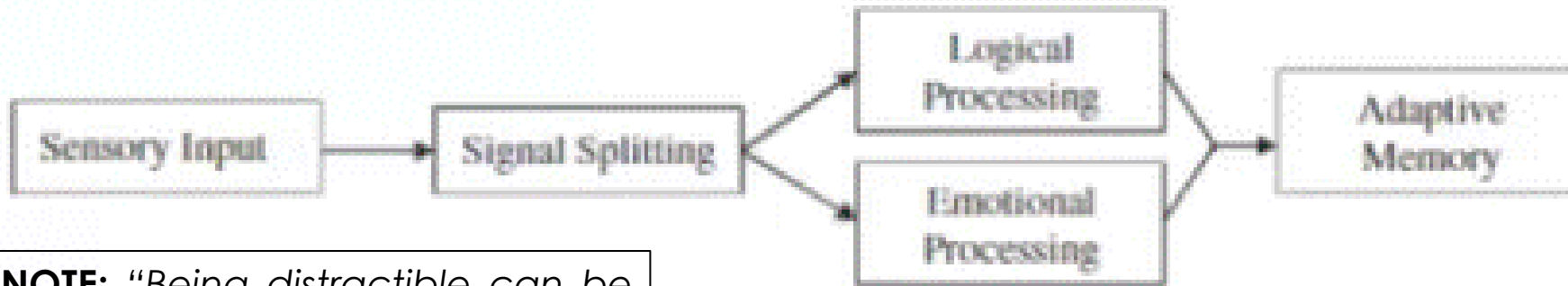
Trauma Directly Impacts – and Warps – Memory Formation ...

Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

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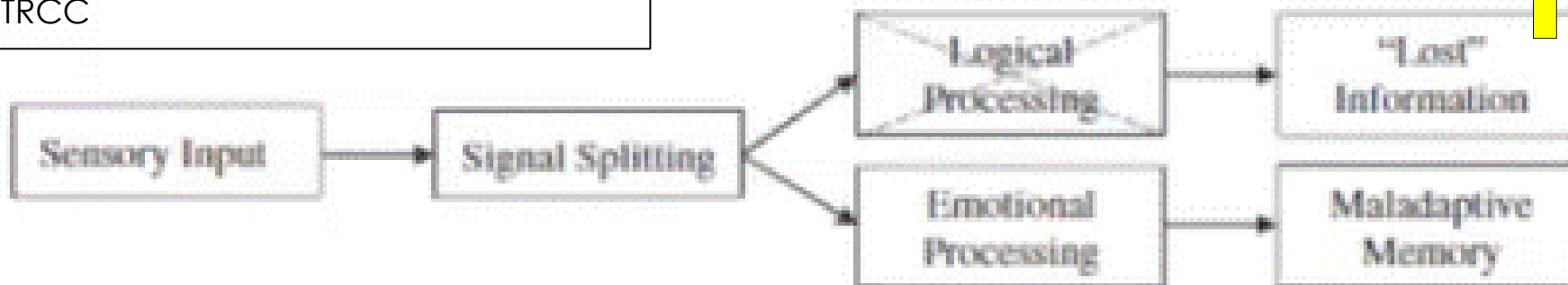
Sean Inderbitzen, APSW, MINT

Typical Processing : *necessary for learning*



NOTE: "Being distractible can be about Trauma just as much as it can be about AD/HD, but AD/HD is often diagnostically preferable because it can be treated with a pill" – Greg Handleton MA, LPCC-S, TRCC

Trauma Processing : *interferes with learning*



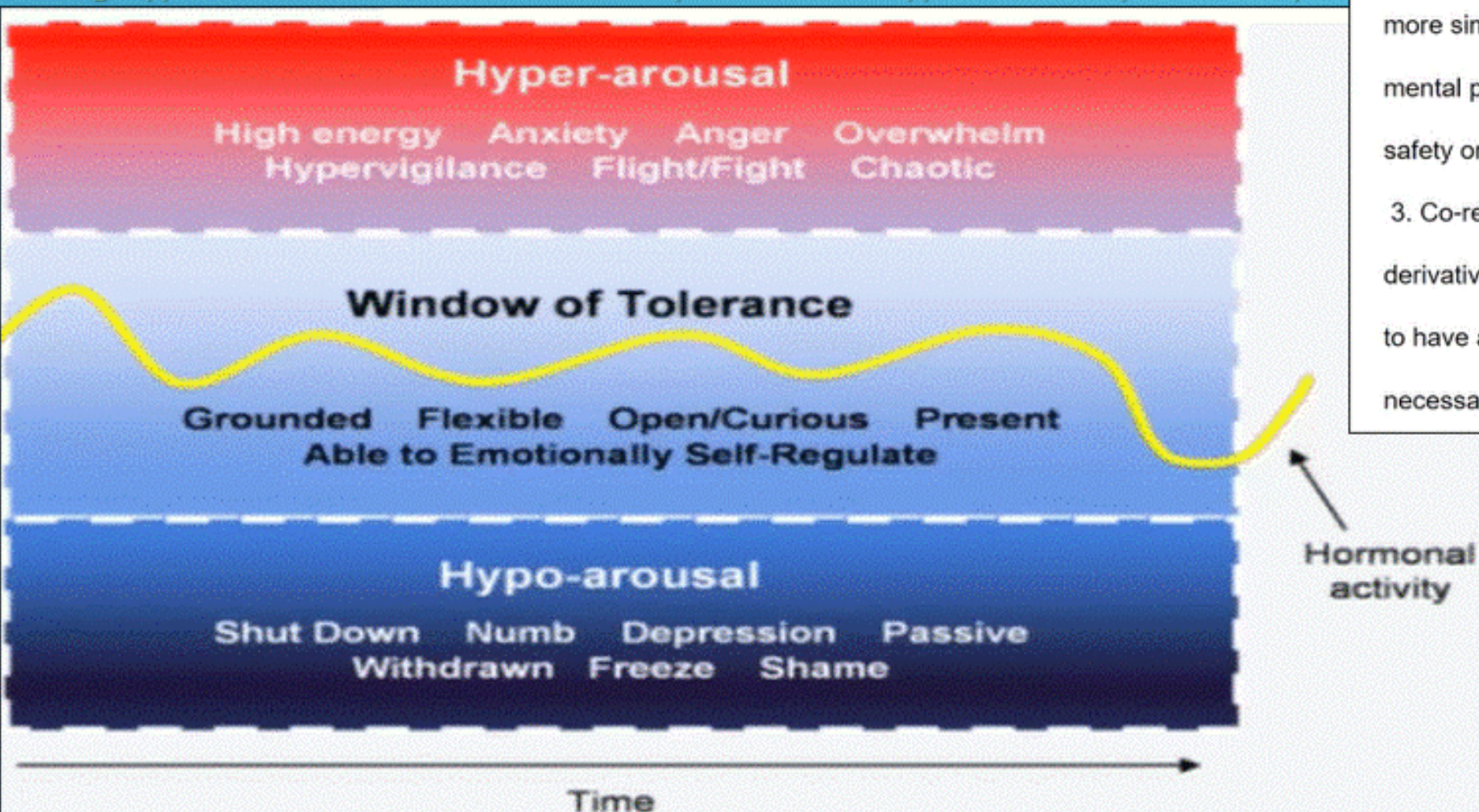
... which is why a kid who is already emotionally dysregulated can **insist** that "I **didn't do that!**" even though you **caught** them doing it. This is partly because when stress (including trauma-level) **activates the Fight/Flight/Freeze response**, that person's executive, logical processing **goes offline**. They literally don't remember doing x, y, or z because they were more focused on survival.

Window of Tolerance from Dan Siegel, but based on the work described in PVT of the ANS.

ASD folks are known to have **lower Heart Rate Variability (HRV)**, which is a fancy way of saying that even when they're operating **within** the Window of Tolerance, it takes less stress to **push them into** Hyper-Arousal. Then, when being hyper-aroused doesn't work, they move into Hypo-Arousal (shutdown).

Adapted from Polyvagal Theory (PVT herein)

1. There is a hierarchy of organization: Based on evolution, the ANS is organized into three parts which activate in a specific order;
2. Neuroception is a felt sense of safety or threat. Or, more simply stated, neuroception is a subjective mental process without awareness of feelings of safety or feelings of threat.
3. Co-regulation, the basis of social behavior, is derivative of mutual feelings of safety. Thus the need to have a felt sense of safety within relationships is necessary to be emotionally regulated .



Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

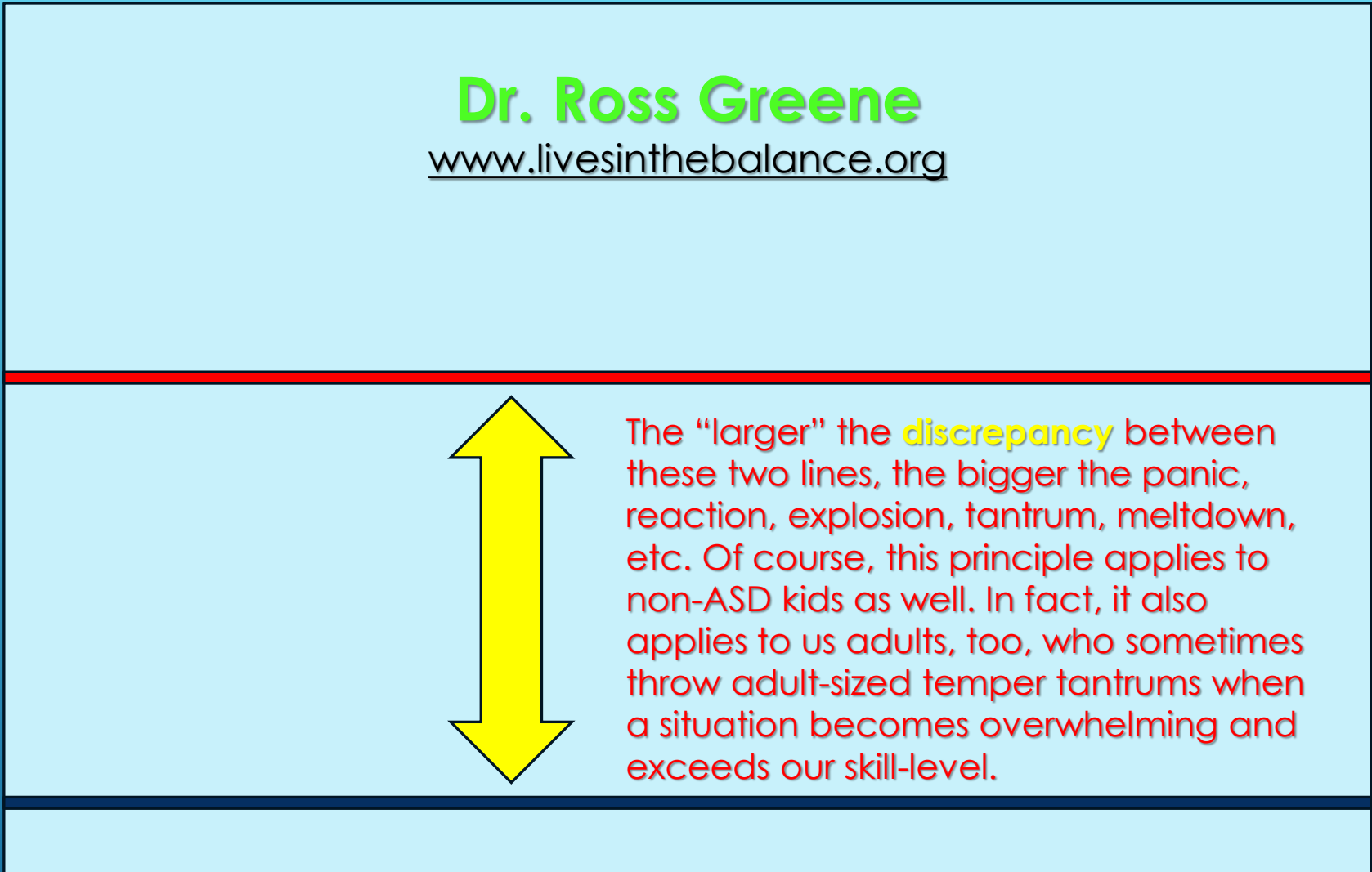
A Framework to Inform EMDR and Sensorimotor Psychotherapy Interventions in Therapy Self-Compassion

Sean Inderbitzen, APSW, MINT

Dr. Ross Greene

www.livesinthebalance.org

The level of spoken or unspoken expectation or demand being placed on the child in the specific areas where skills are **lacking** or even in areas where they do have **some** skill ... but not **enough** skill to actually resolve the situation.



The “larger” the **discrepancy** between these two lines, the bigger the panic, reaction, explosion, tantrum, meltdown, etc. Of course, this principle applies to non-ASD kids as well. In fact, it also applies to us adults, too, who sometimes throw adult-sized temper tantrums when a situation becomes overwhelming and exceeds our skill-level.

Child’s skill level in a particular area

Of course, not every meltdown is always 100% about a lacking or lagging skill, but think about it: Would the tantrum be as dramatic if they did have the skill or ability, but simply didn’t feel like doing what’s being asked? Also, how often are we adults guilty of throwing commands at kids while expecting them to simply do it whether or not they know how, have been trained, or have the cognitive ability to problem-solve their way through multi-step instructions or not?

Understanding the Five Different States of the Nervous System

The five different states of the nervous system are:

- **Dorsal Vagal State:** This state is part of the parasympathetic nervous system and generally slows things down. It activates when the nervous system senses a threat and believes there's nothing we can do to change it. Internal experiences may include a feeling of calm and safety, while outward signs may include a relaxed heart rate and breathing. ↻ 1
 - **Sympathetic State:** This state is part of the sympathetic nervous system and prepares the body for action. It speeds up the system to help us respond to danger. Internal experiences may include heightened alertness and energy, while outward signs may include a rapid heartbeat and increased blood circulation to the muscles. ↻ 1
 - **Ventral Vagal State:** This state is part of the parasympathetic nervous system and appears when we feel safe and supported. It promotes relaxation and restoration, improving digestion, immune response, and social connectivity. Internal experiences may include a feeling of calm and safety, while outward signs may include a stable heart rate and breathing. ↻ 1 (works at a deeper level than the Parasympathetic NS)
 - **Fight-Flight State:** This state is part of the sympathetic nervous system and prepares the body for action. It is characterized by heightened alertness and readiness to respond to stress. Internal experiences may include racing thoughts and disorganized cognition, while outward signs may include a rapid heartbeat and increased energy. ↻ 1
 - **Shutdown State:** This state is part of the parasympathetic nervous system and is associated with feelings of immobilization and shutdown. It is often triggered by overwhelming or ongoing threats. Internal experiences may include numbness and flatness, while outward signs may include a lack of physical and emotional engagement. ↻ 1
- Understanding these states can help in recognizing what's happening in oneself and others, and how to support a shift toward regulation. ↻ 1

... but it's not just about whether or not a child has the **skills** to handle the demands being placed on them by a particular set of circumstances (including the behaviors of the adults in their environment), it's also about **HOW the child's nervous system is processing this incoming sensory data on a subconscious level.** See the next slide for a chart that shows the progression of the **Fight/Flight/Freeze/Flock/Fawn reactions** of anyone's/everyone's nervous system in the face of any stimuli that appear threatening.

“Autism Spectrum Disorder is a disorder of a depressed Social Engagement System and depressed ventral vagal circuit.”

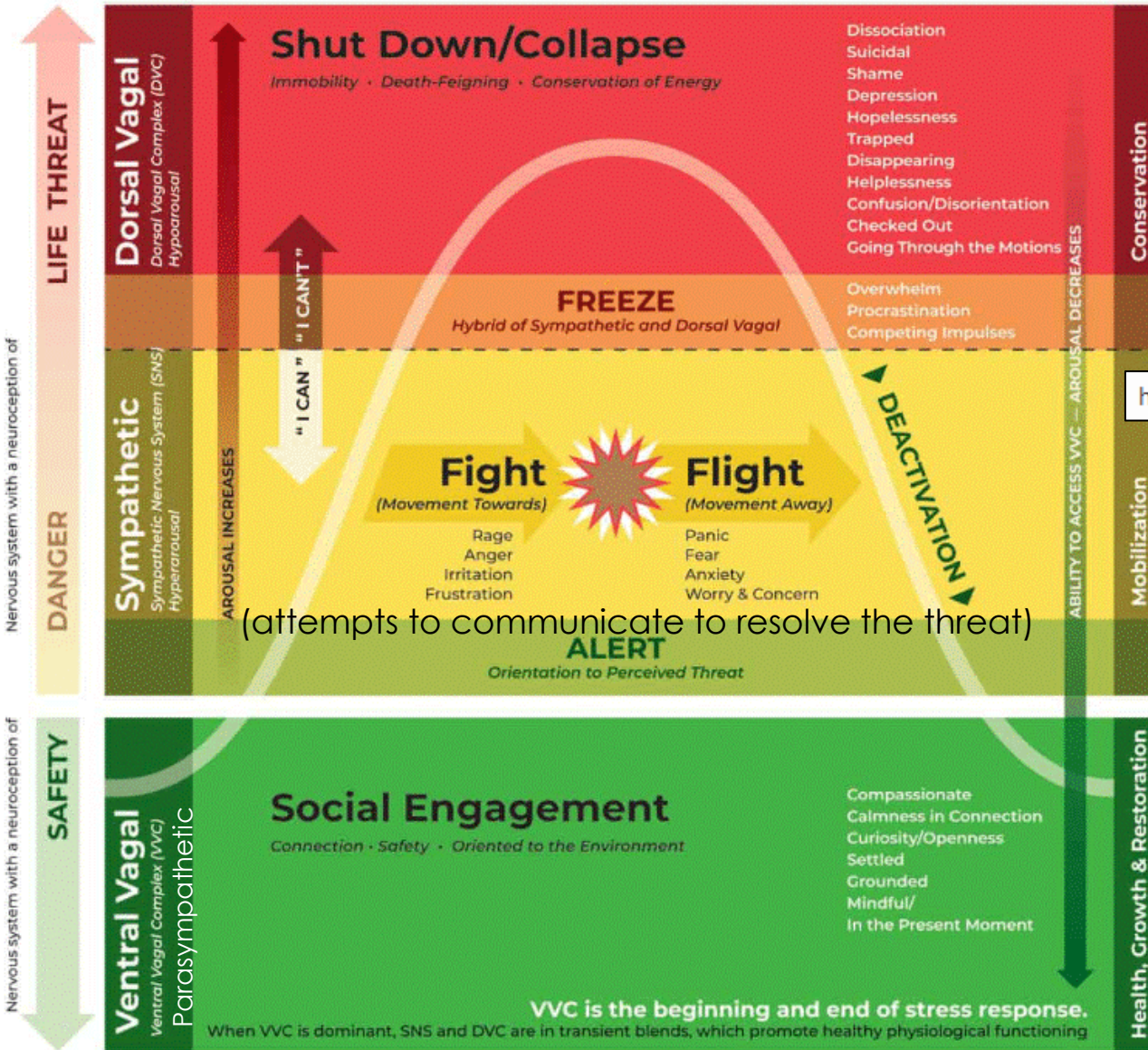
“But let's be clear, this [statement, above] is not a repeat of the lie of the 1950s when it was believed that ASD was caused by parents being bad parents” – i.e., being abusive and therefore causing ASD by causing trauma.

Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

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Polyvagal Theory Chart of Trauma Response



Parasympathetic Nervous System Dorsal Vagal Complex (DVC)

▲ INCREASES

Fuel Storage and Insulin Activity
Immobilization Behavior (with fear)
Endorphins to Numb/Raise Pain Threshold
Conservation of Metabolic Resources

▼ DECREASES

Heart Rate · Blood Pressure
Temperature · Muscle Tone
Facial Expressions and Eye Contact
Depth of Breath · Social Behavior
Attunement to Human Voice
Sexual Responses · Immune Response

<https://themovementparadigm.com/how-to-map-your-own-nervous-system-the-polyvagal-theory/>

Sympathetic Nervous System (SNS)

▲ INCREASES

Blood Pressure · Heart Rate · Fuel Availability
Adrenaline · Oxygen Circulation to Vital Organs
Blood Clotting · Pupil Size · Dilation of Bronchi
Defensive Responses

▼ DECREASES

Fuel Storage · Insulin Activity
Digestion · Salivation · Relational Ability
Immune Response

-PVT suggests (per PORGES) that ASD is a common state of threat in which an organism is locked into a defensive state that reflects anxiety, poor social interaction, and hypersensitivity

Parasympathetic Nervous System Ventral Vagal Complex (VVC)

▲ INCREASES

Digestion · Intestinal Motility
Resistance to Infection · Immune Response
Rest and Recuperation · Health and Vitality
Circulation to Non-Vital Organs (skin, extremities)
Oxytocin (neuromodulator involved in social bonds that allows immobility without fear)
Ability to Relate and Connect
Movement in Eyes and Head Turning
Prosody in Voice · Breath

▼ DECREASES

Defensive Responses

Treating Autism and PTSD Comorbid Through a Polyvagal-Informed Lens

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Connor Kerns Autism Trauma

Dr. Connor Kerns is a prominent researcher in the field of autism and trauma. She has conducted extensive studies on the relationship between childhood adversities, trauma, and mental health in autistic individuals. Her research highlights the need for specific trauma measurements tailored to the autism community and emphasizes the importance of understanding the diverse presentation of anxiety in autism. Dr. Kerns' work includes developing the **Childhood Adversity & Social Stress Questionnaire (CASS-Q)** and investigating the prevalence and impact of traumatic experiences in autistic people. Her ongoing studies aim to better measure trauma for those on the autism spectrum, ensuring their trauma can be recognized and effectively treated. [Autism Research Institute](#) +5



THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver Campus

Anxiety Stress and Autism Program (ASAP)

Interested in joining the ASAP lab? Check out our [Join our lab page!](#)

<https://asap.psych.ubc.ca>

Research Participation Opportunities at the ASAP Lab!



Providence Health Care

Anxiety, Stress, and Autism Program
Principal Investigator: Dr. Connor Kerns
Ph.D., R. Psych (92472), Associate Professor



Seeking Young Adults (Ages 18-30)

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YOU WILL RECEIVE \$20 PER HOUR VIA A GIFT CARD OF YOUR CHOOSING!

The study will include **one in-person visit** at UBC (1-2 hours) and **two online sessions** (45 minutes each).

FOR MORE INFORMATION:
Email: schemastudy@psych.ubc.ca
Phone: 604-822-6069
Study Website: bit.ly/5SCHEMA_C03
Lab Website: <https://asap.psych.ubc.ca/>



The Social Communication, Historical Exclusion, Memory and Affect (SCHEMA) Study 2.0

What to expect in the study:

SCHEMA 2.0 is a three-part study that includes one in-person visit at UBC (1-2 hours) involving eye tracking and two online sessions (45 minutes each). The study takes approximately 2.5 hours (for non-autistic participants) to 3.5 hours total (for autistic participants).

How do I participate in the study?

If you are interested in participating in this study, please fill out the eligibility screener survey (~3 min) [here](#).

Participants receive \$20 per hour in the form of any electronic gift card of your choosing.



Connor Kerns

Associate Professor

cmkerns@psych.ubc.ca

604 822 6771

Kenny Room 3404 - 2136 West Mall

[Lab Website](#)

[Google Scholar](#)

[Download CV](#)

RESEARCH AREA

[Clinical](#)

EDUCATION

PhD, Temple University, 2013

From the previous slide: ... with ASD folks, the signals being sent **FROM** the gut (Autonomic signals that are outside of conscious control) **TO** the brain may be so variable, dysregulated, and incoherent that these signals increase the person's overall feeling of sensory sensitivity, irritation, and dysregulation, thereby affecting their mood in a negative manner. Then, after the brain receives these autonomic signals telling it that something isn't right, the brain's Fight/Flight/Freeze responses (of the Sympathetic Nervous System) get activated as well – i.e., the brain can only conclude that the entire system is in some kind of danger. Then, because the SNS has been activated, the next thing to be seen is **stress-driven and fear-based behaviors**. Remember, the Fight/Flight/Freeze system might also already be chronically “on” because of past trauma in that person's life, therefore, **problems in the gut only reinforce, maintain, and worsen** the already-existing Fight/Flight/Freeze reactions to perceived danger. Therefore, an ASD person might be **“over-reacting” to little things just as much because of their Autism as because of (1) their imbalanced/unhealthy gut flora and/or because of (2) their trauma history (if they have a trauma history).**

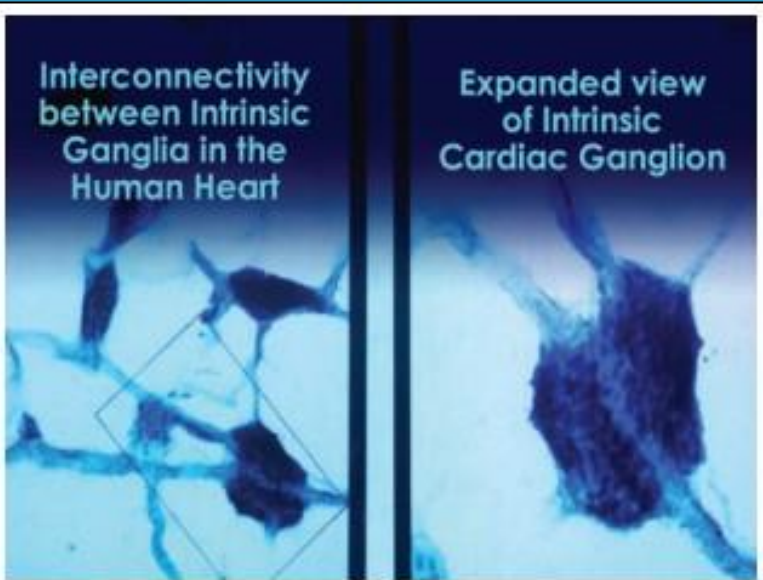

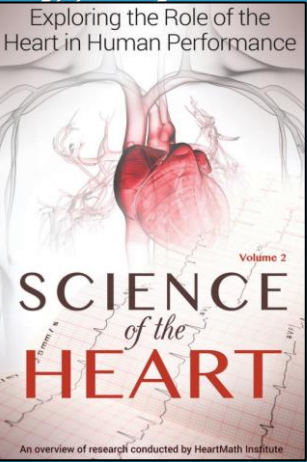


Figure 1.2. Microscopic image of interconnected intrinsic cardiac ganglia in the human heart. The thin, light-blue structures are multiple axons that connect the ganglia. Courtesy of Dr. J. Andrew Armour.

From www.heartmath.org: Did you know that, contained inside the heart walls, are little clusters of neurons called **“ganglia”** - clusters that act like **“little brains”** inside the heart!?! These “little brains” don't just **receive** signals from the brain, but have been found to **generate their own signals!** For more information, go to their website to download a free copy of this interesting and informative ebook:  

The reason this is important in understanding Autism is because the Institute of HeartMath has developed some **heart-centered “coherence”/relaxation techniques** that might be beneficial for ASD people, techniques that do not rely on talking. So! – balance the gut microbiome, **AND** learn HeartMath's **“Quick Coherence Technique”** and an ASD person can reduce their overall anxiety.

People with developmental disabilities are at an increased risk for abuse specifically related to the degree to which they are unable to protect themselves, flee, or communicate to others what has happened. Like with other abuse victims, the abuser of a person with ASD is often someone they already know or are close to.

Autism and Trauma

In this session, I discuss how persons with Autism Spectrum Disorder experience trauma. The presentation provides concrete examples on how professionals can help individuals with ASD to understand and navigate traumatic experiences.

The presentation will cover:

- Diagnostic criteria of Autism Spectrum Disorder (ASD).
- Common sources of trauma for people with ASD.
- Tools to help persons with ASD who have experienced trauma.

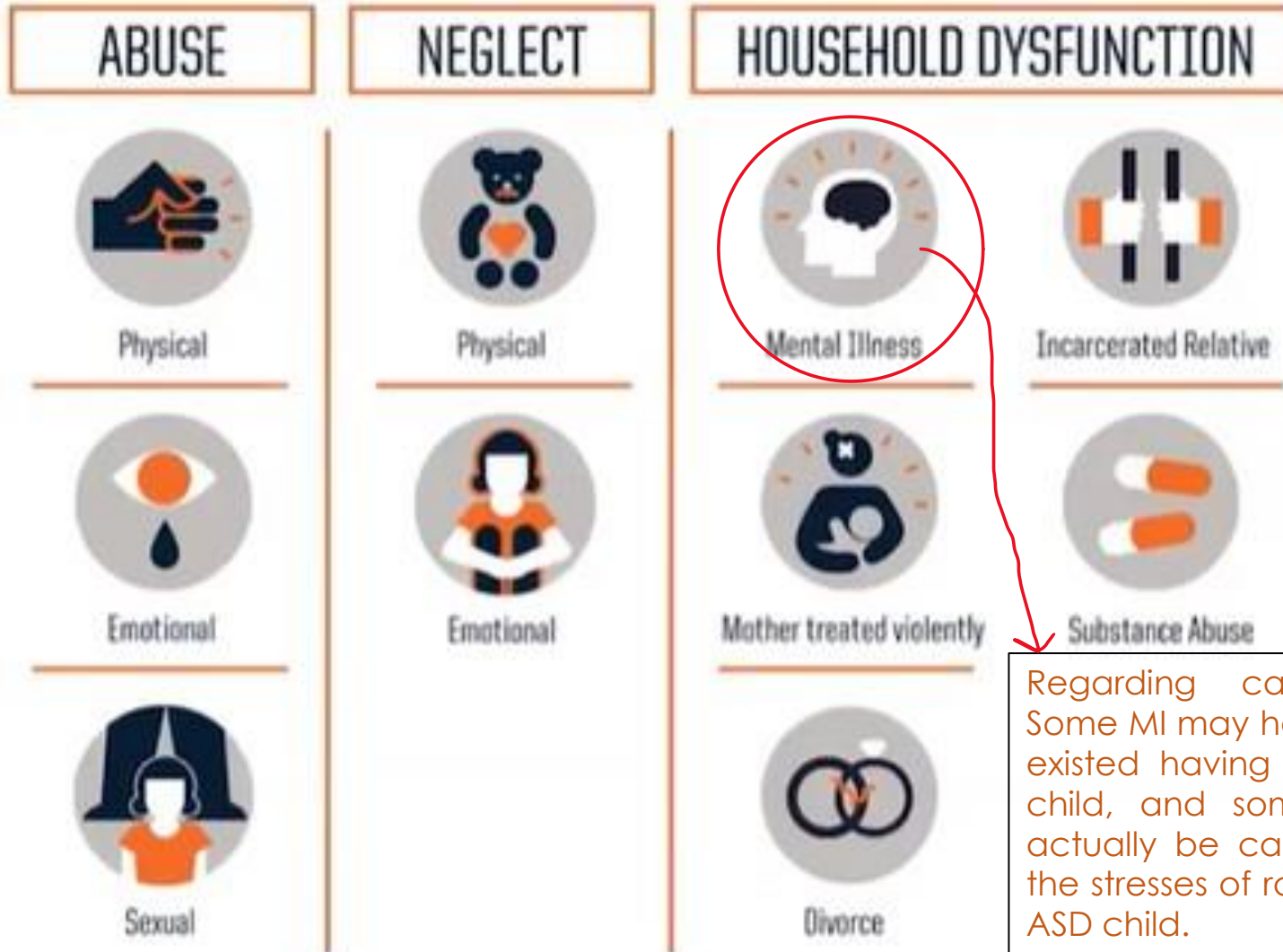
The training, originally presented for OCALI, can be found here:



<https://ohioemploymentfirst.org/autism-and-trauma>

<https://ohioemploymentfirst.org/autism-and-trauma/>

ACEs (Adverse Childhood Experiences)

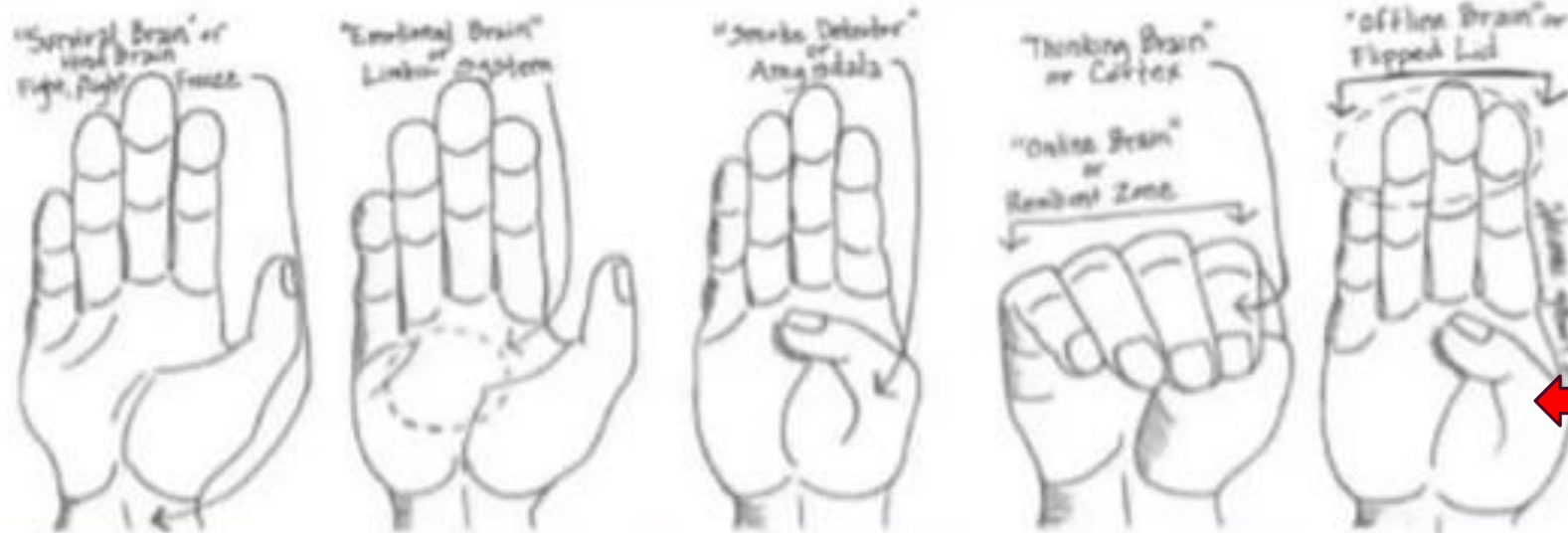


Regarding caregivers: Some MI may have pre-existed having an ASD child, and some may actually be caused by the stresses of raising an ASD child.

Research has shown that when a person has experienced **four or more ACEs**, those experiences are linked to poorer outcomes later on in adulthood in regard to both mental- and physical-health and even their overall life expectancy. So, we can only imagine how much these common ACEs have negatively impacted those with ASD who are also less able to take care of themselves effectively as adults.

Understanding the Brain

Hand Brain Model, Dr. Dan Siegal



Survival Brain

Sensation

Autonomic functions
Survival strategies:
fight, flight,
freeze, submit,
& collapse

Emotional Brain

Expression/
regulation of
feeling
Memories
relationships/
attachment

Amygdala

Smoke alarm

Thinking Brain

Critical thinking
Problem solving,
planning,
creativity,
beliefs, impulse
control

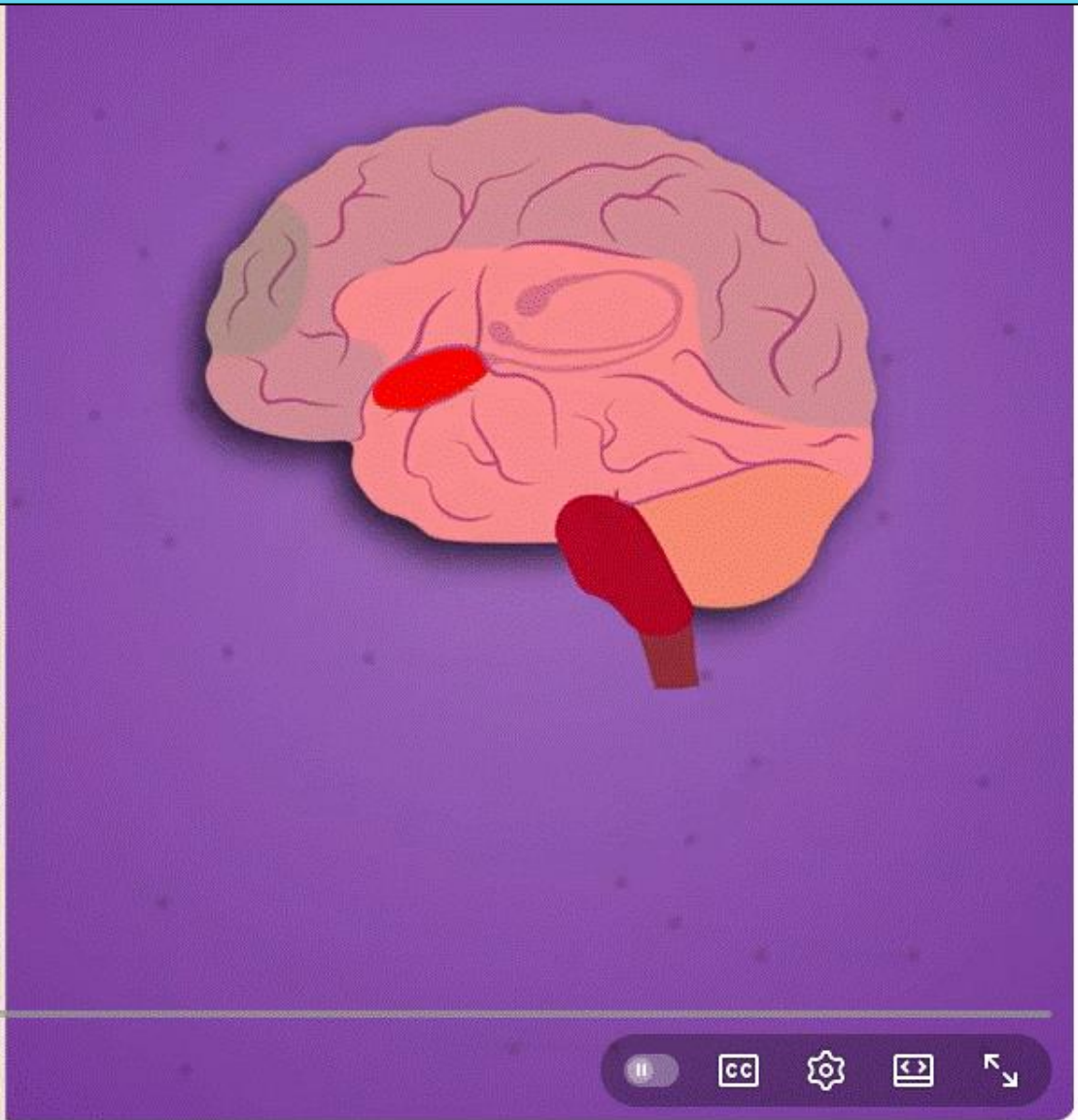
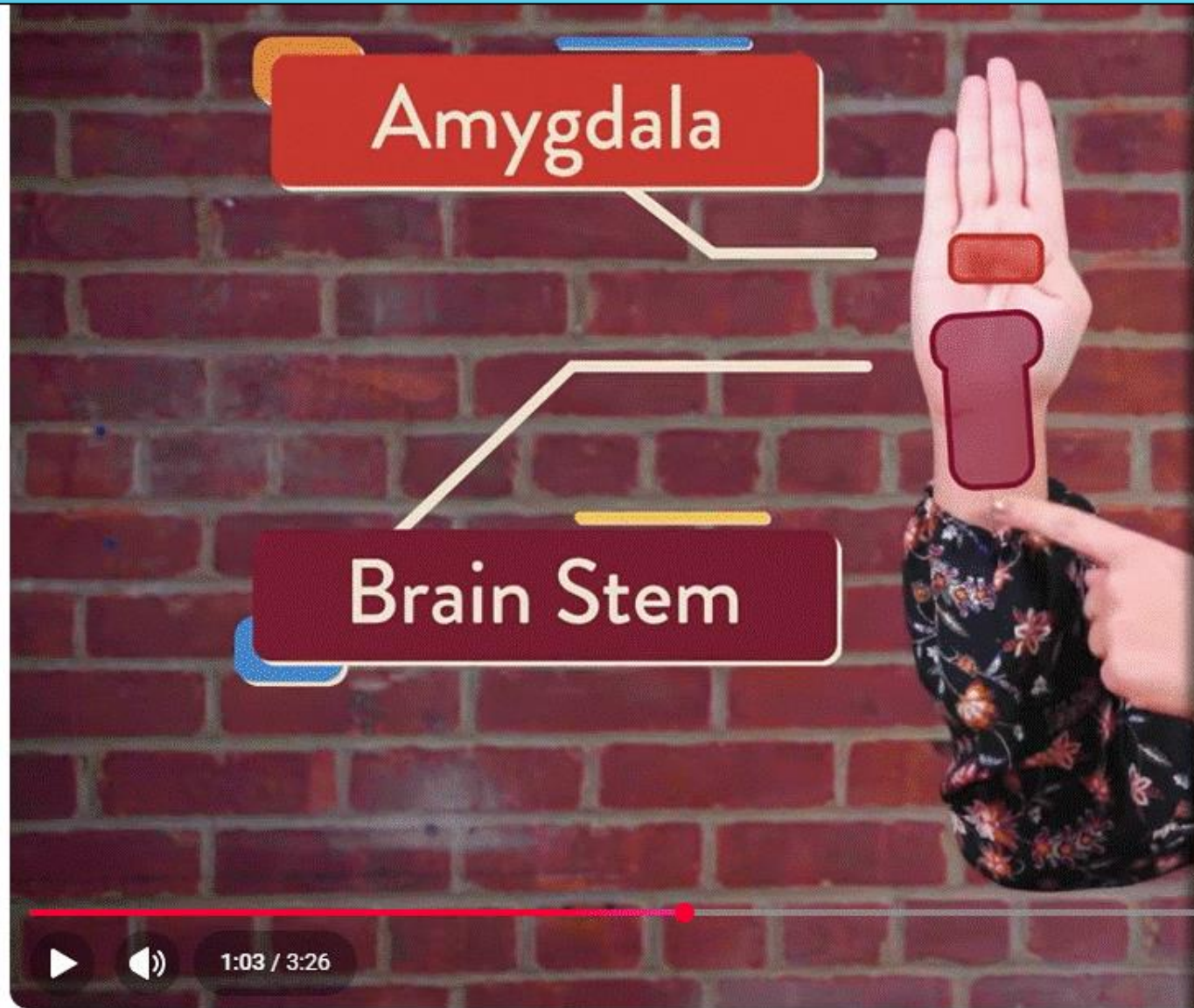
Offline Brain

Survival brain
in control
Not able to
access the
thinking brain.



Children's Brain Society

The thumb should be sticking out, since the "smoke detector" Amygdalae, when activated, are what sends the person into being "offline" – i.e., the thumb, when it comes out, flips the fingers up, which signifies the end of rational thought until the person is restored to emotional stability, lability, and regulation.



The Hand-Brain Model! | Self-Regulation Lesson 2

Mineola Grows!
10.5K subscribers

Subscribe

942 Likes Dislike Share Ask Download ...

Other trauma: Lack of Understanding



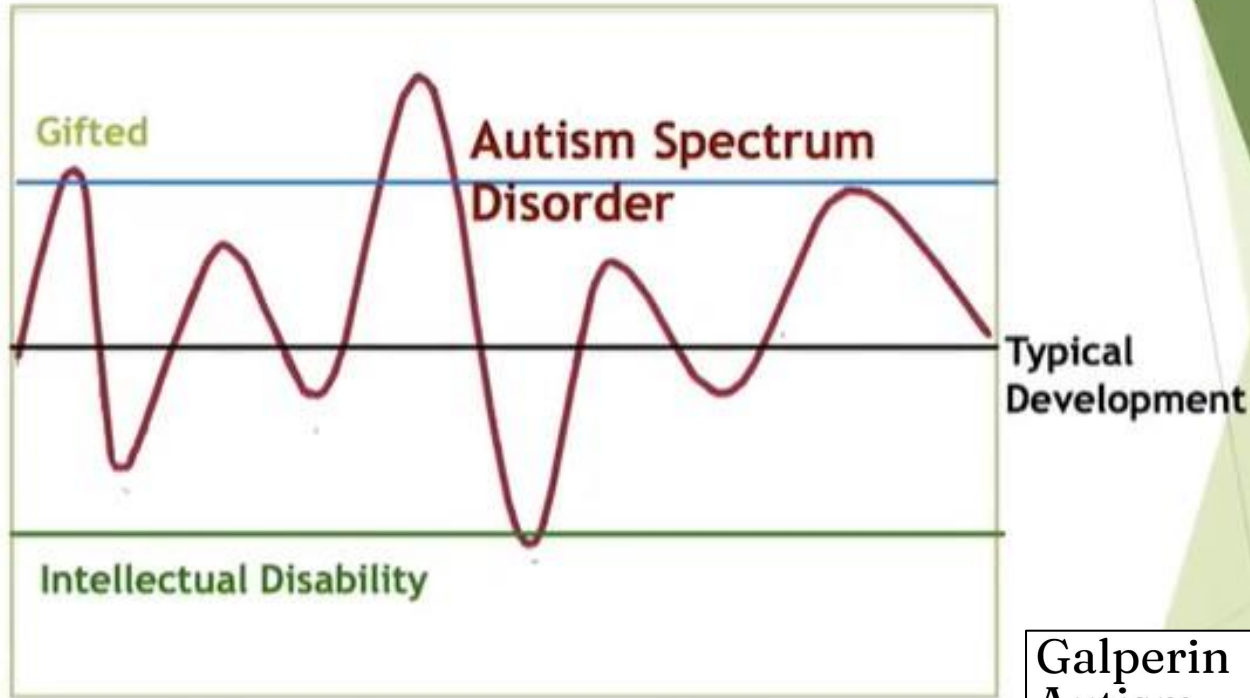
For ASD people, these areas of Social Communication and Sensory challenges are the hardest hit.

**Galperin
Autism
Consulting**
LLC

For ASD people, when it comes to Executive Functioning, it can often be hard to measure just how well they're functioning cognitively when it comes to learning, understanding information being presented to them, memory, etc. Remember Carly? – she didn't start communicating until she was over the age of 10, but when she did, her ability to spell words correctly was highly developed! Helen Keller is another great example of an older child whose intelligence had been masked by disabilities until Ann Sullivan came along who was able to help her learn to communicate.

It's important to remember that people with ASD are more than just their ASD-rooted challenges. They, too, like everyone else, have their own strengths as well as areas of additional struggle. Just as a person with an IQ over 140 can still struggle with addiction, be selfish, make poor decisions, procrastinate, and keep "forgetting" to honor certain obligations and responsibilities, so too can ASD people. ASD folks have their own learning style, they can experience mental health difficulties, they may also experience physical and medical challenges, and their personality development will be represented by a mixture of positive and negative traits ... again, just like everyone else.

Developmental Skills



Developmental Age

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It's a human tendency to look at someone, assess how they look, and then make judgements about them based on appearance – e.g., we assume they “should” be functioning a certain way based on how they look. In other words, just because Sally is really good at Math, that doesn't mean we should assume she is equally high-functioning in every area; or, just because an ASD person is really gifted at reading and writing, that doesn't mean we can assume that they are high-functioning in verbal skills, using manners, social cues, etc.

E.g.: Just because Bubba is big and stocky, we can't assume that he'd be interested in or be good at football; or, just because Sally is really tall, we can't assume that she'd be interested in or good at basketball. And yet these are the very conclusions that many parents, coaches, and teachers have falsely made for many decades based on looks!

Dr. Temple Grandin:

People who experience trauma almost always automatically experience a hyper-arousal of their nervous system ... a condition that stays “on” all the time from that point forward. However, “if they are Autistic [their nervous system will get] upregulated even more because a lot of people [on the ASD spectrum] are born with a nervous system that is [already] highly reactive.”

“Upregulated” means the same thing as hyper-sensitive, overly reactive, etc.

Complex Trauma

From a lecture entitled, *Dissecting the Brain-Gut Connection to Address Sensorimotor Concerns for Children with Autism*, by Dr. Varleisha Gibbs PhD, OTD, OTR/L, ASDCS

Continued, long-term exposure to traumatic events impacts a person at various biopsychosocial levels. There are primary, secondary, and tertiary forms of trauma. The term complex trauma “describes both children’s exposure to multiple traumatic events, often of an invasive, interpersonal nature, and the wide-ranging, long-term impact of this exposure”

(Complex Trauma Treatment Network of the National Child Traumatic Stress Network, 2016).

Simply HAVING Autism can be “traumatizing” over time. Imagine how “traumatizing” it would be to a neurotypical person if a fly kept landing on their arm once every three seconds for their entire life. Well, this level of irritation, magnified x100, is what ASD individuals with sensory sensitivities experience. And, just as a neurotypical person can become traumatized by witnessing violence or hearing about a loved one being hurt, an ASD person can also be traumatized by these same things ... but **the impact of trauma on ASD individuals often gets magnified by their inability to process emotions or share them effectively.**

Resources

- ▶ **Article: Intersection of Autism and Trauma.** Shared traits and connections of ASD and PTSD. <https://doi.org/10.53053/VEMR8039>
[Article: Intersection of Autism and Trauma](#)
- ▶ **Article: Autism, Adverse Events, and Trauma.** Highlights the importance of recognizing trauma-related symptoms at an early phase and start of trauma treatment. It also provides an overview of the current knowledge about the feasibility and effectiveness of treatment of trauma-related symptoms in people with ASD. <https://www.ncbi.nlm.nih.gov/books/NBK573608/>
[Article: Autism, Adverse Events, Trauma](#)
- ▶ **Resilience Video Series:**
<https://www.findinghopeconsulting.com/resilience-model>
[Short Videos on The Resilience Model](#)

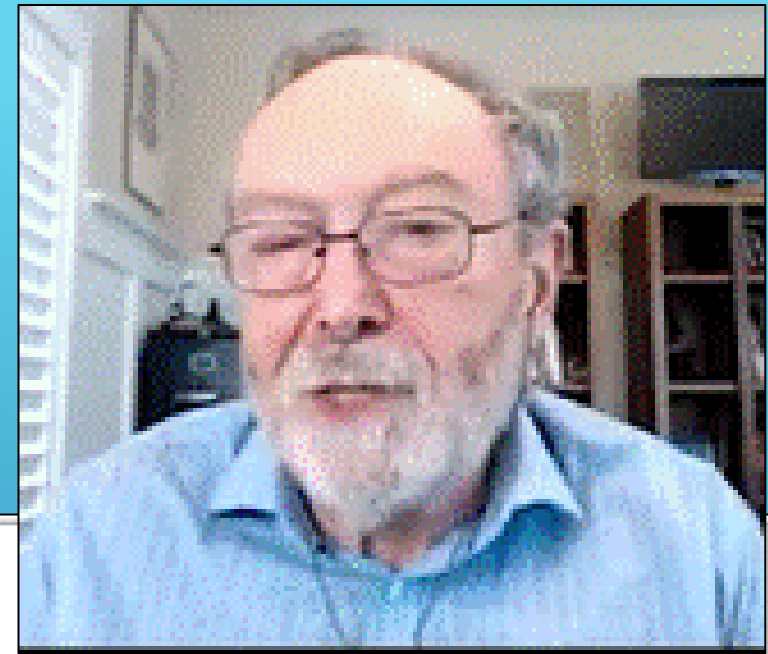
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Psychophysiological Assessments and Autonomic Scales

All assessment tools are free for educational, research, and clinical use. They are managed by the [Kinsey Institute Traumatic Stress Research Consortium \(TSRC\)](https://www.kinseyinstitute.org/traumatic-stress-research-consortium).

<https://www.polyvagalinstitute.org/assessments>

Body Perception Questionnaire

Measurement of body awareness and autonomic symptoms

Get the BPQ

Neuroception of Psychological Safety Scale

Measurement of social, emotional, and body sensation aspects of feeling safe

Get the NPSS

Brain-Body Center Sensory Scales

Measurement of sensory, ingestive, and digestive problems

Get the BBCSS

Purpose in Life Scale

Measurement of feelings of purpose

Get the PIL Scale