

**Polyvagal theory
for all of us:**
how it
**informs trauma resolution,
supports adaptation / resiliency
and compassion**

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- 1) What is PV theory – overview & the flaws it fixes in our model of the autonomic nervous system
- 2) Why I'm so committed - its precision makes treating trauma more effective
Clinical efficacy validated in research.
Helps me understand my own ACE-related health challenges & fine-tune my **adaptive** choices
- 3) Principles of therapeutic practice - quick overview *
- 4) **Tracking**: dual role of this fundamental adaptive strategy/skill & its applications for healing
- 5) Sources, resources and how we can learn more together.

Applied Polyvagal study group / day-long seminar?

**“a truly revolutionary
perspective on human nature”**

Paul Ekman

Polyvagal theory fills gaps in traditional Autonomic Nervous System model as it applies to trauma

Key adaptive systems to understand

- dorsal vagal freeze/shut down system
- **ventral vagal social engagement system**
- **vagal brake** on **sympathetic arousal**
- **neuroception**: “I postulated the construct”

Stephen Porges

Dr Porges Research Professor, Dpt of **Psychiatry** UNC, Emeritus Professor of Psychiatry, **Bioengineering & Neurosociety** at U. Illinois Emeritus Professor of **Human Development**, U.Md. (National Institute of Child Health & Human Development Laboratory of **Comparative Ethology**). His **neurobiology of social behavior** research crosses disciplines, publishing in **anesthesiology, critical care medicine, ergonomics, exercise physiology, gerontology, neurology, obstetrics, pediatrics, space medicine, & substance abuse**.



In **1994** he proposed the Polyvagal Theory, linking the evolution of the autonomic nervous system to the emergence of social behavior. His book was published in **2011**.

<http://stephenporges.com/>

Porges on safety

- I wanted to understand the ability to make people feel safe. . . what the range of human behavior would be if people were safe. Actually, that's the real question.
- The potential of the individual will only really occur in the context of safety, at least the potential for new knowledge, new ideas, and bold new solutions.
- What would life be like if creative people felt safe, or if more people could become creative because they are safe?

DharmaCafe interview

PVNS theory's origins in fetal distress

"... this perplexing observation . . . fetal bradycardia occurred only when respiratory sinus arrhythmia (**heart rate variability/HRV**) was depressed.

Vagal mechanisms mediate both respiratory sinus arrhythmia (HRV) & bradycardia . . . **one is protective and the other potentially lethal.**" (SIDS?)

"Too much of a good thing ???"

This "**vagal paradox**" . . . led to the development of polyvagal theory."

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3108032/>



PVNS theory's origins in fetal distress

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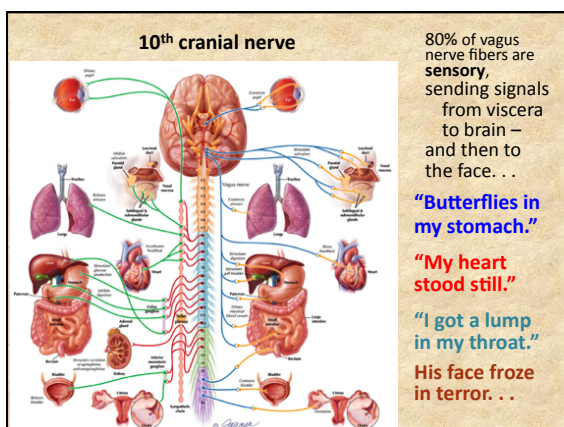
"Too much of a good thing?"

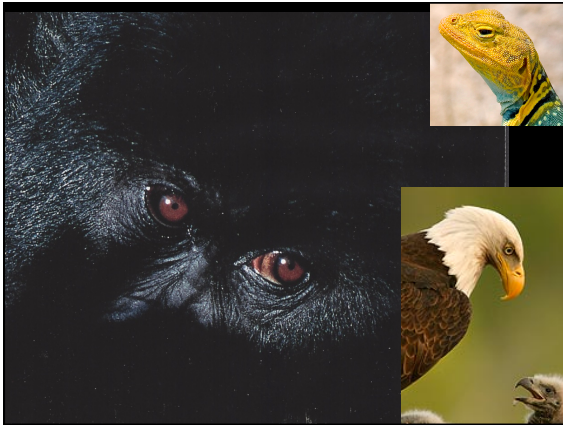
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Wearing Your Heart on Your Face: The polyvagal circuit in the consulting room: "research-based insights into how therapists can more effectively convey safety to clients"
<http://www.psychotherapistnetworker.org/magazine/recentissues/2013-septoct/item/2250-point-of-view>

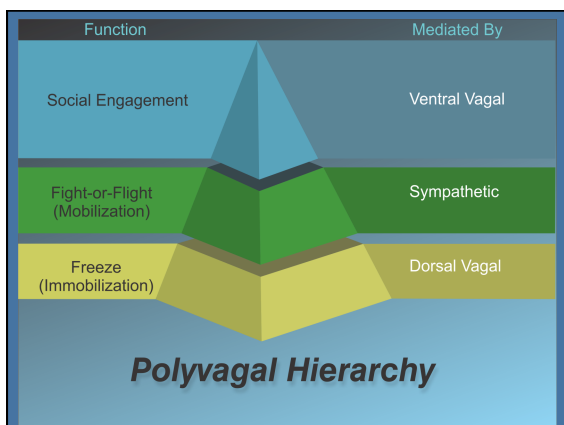
Safety through social engagement - mediated through the ventral vagus' vagal brake

... The (ventral) vagal circuit in the brainstem places a **tonic inhibition** on the heart's pacemaker. This inhibits **sympathetic activity**. It also coordinates nerves controlling face & head muscles – **humans literally show our hearts on our faces**.

We have to show each other we're safe to come close to, to trust. . . maybe have sex with. We convey our message of safety through through our faces.

And our voices. The voice convey a physiological state of calm, or arousal. If **higher-pitched**, it's saying, **"Don't come near me."** (The vagal brake is coming off)





If we have it available, we will use the highest level of our nervous system.

If we're not using that level, it's because it has gotten knocked offline and it is not available to us.


The good news: we know how to bring it back online.

Polyvagal theory clarifies which skills and resources will bring it back on most efficiently – and most gently

"It doesn't have to be an ordeal to heal."

Back to our resilient zone / zona de bien estar
window of tolerance (Janina Fischer) – **flow zone - within threshold**

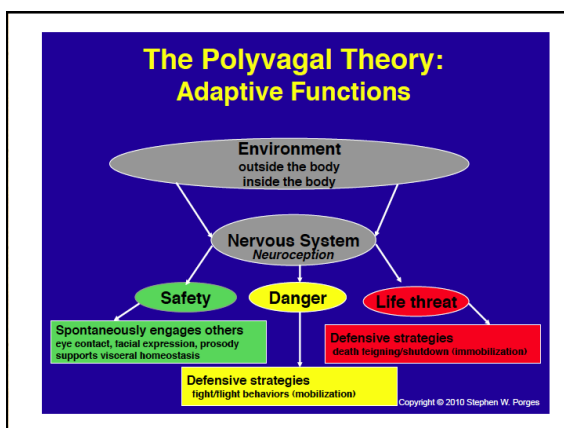
... Feeling **relatively** safe, capable, contained, comfortable, connected, oriented and available to what's occurring right now. We respond to the world around us in the present moment.



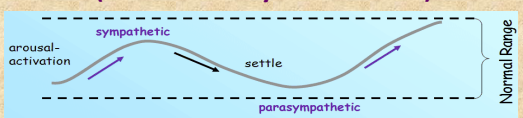
We can remember how to do this.

Polyvagal theory helps us **track**, using the **language of sensation & observation**, where we and our clients are – both externally and internally –

to better assess where – and how **they'll / we'll** feel **safer & what type of connection will most support the shift**



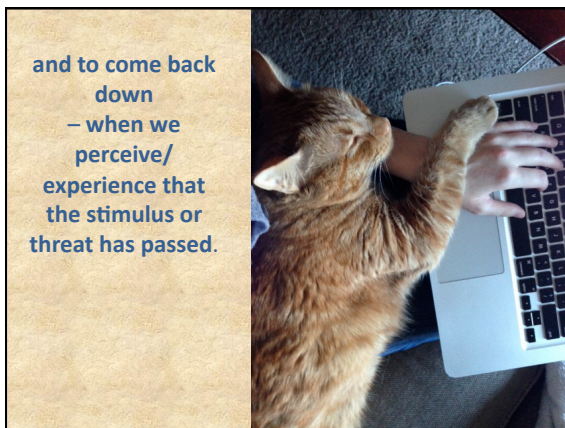
**Traditional ANS model:
What goes up - comes down
(in the securely attached...)**



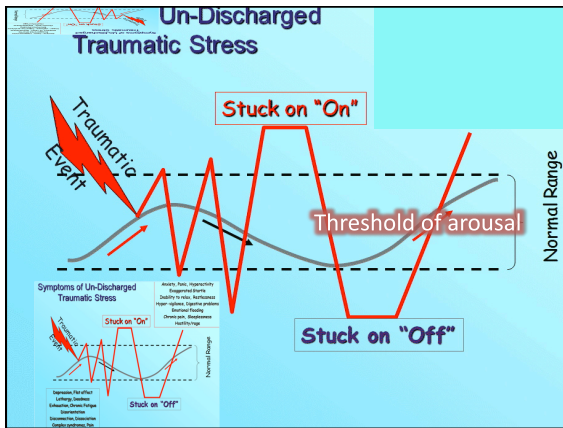
Simplistic 2 antagonistic systems model fails to address complex dynamics in a nervous system that has experienced trauma

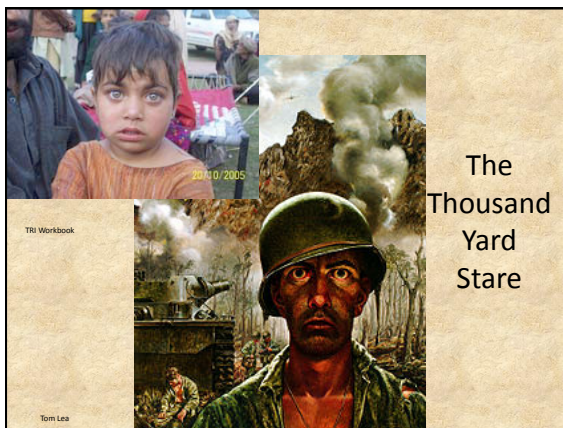
freeze is not on this map

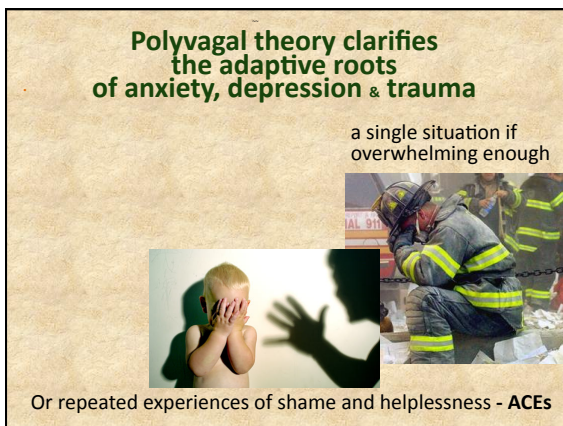




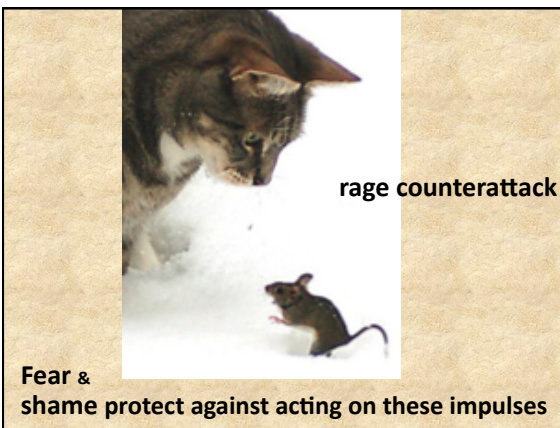


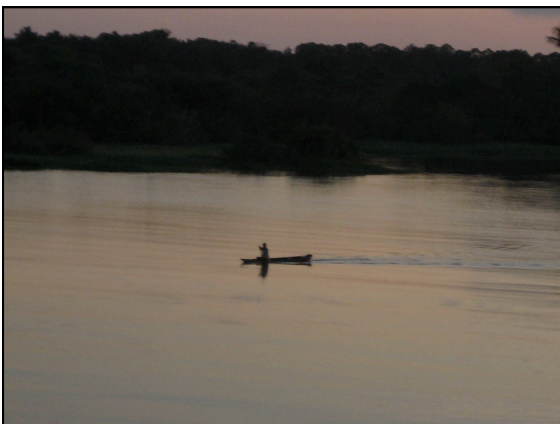






Any creature, knocked too far, too often out of its window of tolerance, can go into traumatic overwhelm & get stuck in **chronic arousal** -- **hypervigilance, fight or flight**, or in a **collapsed state of immobility or dissociation**.





Somatic Experiencing

psychobiological method for resolving
trauma symptoms &
relieving chronic stress

The key to transforming PTSD & wounds of emotional /
early developmental attachment trauma is to release
traumatic shock responses held in the nervous system.

SE offers a framework to **assess where a person is**
“stuck” in the **fight, flight, freeze, or collapse** responses
and provides clinical tools to resolve these fixated
physiological states

The assessment tool is Polyvagal Theory.
PV theory informs our choices of clinical resources

Others with common orientation

- **Trauma Resiliency & Community Resiliency Models (TRM/CRM)** Trauma Resource Institute <http://traumaresourceinstitute.com/>
developed out of / modified from SE.
- **Sensorimotor Psychotherapy (SPI)**, Pat Ogden, Janina Fisher. Peter Levine and Pat Ogden worked together initially.
<https://www.sensorimotorpsychotherapy.org/home/index.html>
- **Dynamic Attachment Repair (DARe)** Diane Poole Heller
(SE/polyvagal based) <http://dianepooleheller.com/>
- **NeuroAffective Relational Model (NARM)** Aline LaPierre & Larry Heller's SE/PV-informed developmental trauma therapy
<http://www.drlaurenceheller.com/> http://cellularbalance.com/neuroaffective_touch.html
- **Buddhist psychology/ SE integration** - Tara Brach, Jack Kornfield
- **Bessel van der Kolk** *The Body Keeps the Score* PV references
- **Adult attachment: Sue Johnson's Emotionally Focused Therapy EFT**
- **Rick Hansen**, Buddhist-informed neuropsychologist
James Baraz, Tsoknyi Rinpoche

Historical Timeline

- **3000? BCE Asian embodied psycho-spiritual practices** independent of Cartesian mind-body split – yoga, qi gong, meditation: Hara, Dan Tian
- **Early 1900's Pierre Janet**, dissociation
- **1930's body psychotherapy, Reich, Lowen**
- **1960's Peter Levine** using body awareness for stress reduction. PhD in medical biophysics. Pat Ogden & Peter Levine working together
- **Early 1980s** first course in **Sensorimotor psychotherapy** (Ogden/Levine part)
- **1994 Porges** proposes the Polyvagal Theory (PV)
- **1997** Peter Levine publishes *Waking the Tiger* – mentions freeze, not PV theory, **Somatic Experiencing (SE)** modality
- Late 1990's Peter Levine meets Porges, integrates Polyvagal Theory into SE
- **2002 Seeking Safety** published, no reference to PV
- 2004 SE for tsunami relief Thailand, Elaine Miller-Karas
- 2006 Trauma Resource Institute (TRI) > **Trauma Resiliency Model (TRM)**
SE based short-term biological intervention easily taught to first-responders.
- 2006 Pat Ogden's *Trauma & the Body* – incorporates PV hierarchy
- 2010 Peter Levine's *In an Unspoken Voice* – PV theory central
- 2011 Porges publishes *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, Self-Regulation*

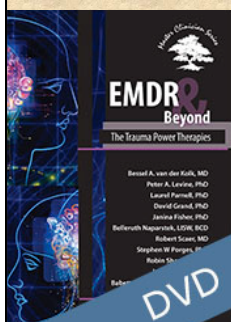


How Neurobiology Changed the Way We View the Treatment of Trauma

Pat Ogden, PhD in **current** NICABM Brain-Smart Webinar Series

- Why the Body Matters When Working with Brain Science
- 3 Key Elements that Practitioners Need to Keep in Mind for Maximum Healing
- Why You Can't Just Use the Left Brain to Talk Your Way Out of Trauma
- How **Mindfulness** Heals the Brain and Body

EMDR & Beyond: The Trauma Power Therapies



- LINDA CURRAN, BCPC, LPC, CACD, CCD
- JANINA FISHER, PH.D.
- PETER A. LEVINE, PH.D.
- JAMIE MARICH, PH.D., LPCC-S, LICDC
- STEPHEN PORGES, PH.D.
- BESSEL A VAN DER KOLK, M.D.
- LAUREL PARNELL, PH.D.
- BABETTE ROTHSCHILD, MSW, LCSW
- BELLERUTH NAPARSTEK, LISW, BCD
- ROBERT SCAER, M.D.
- DAVID GRAND, PH.D.
- ROBIN SHAPIRO, LISW

PESI

An SE/Polyvagal contribution to EMDR & Brainspotting:

Tracking for the threshold of overwhelm

Titration: working with small increments of arousal so as not to let the client go "over threshold"

You can feel safer knowing you can choose

- **how much,**
- **how long** to stay with any distressing sensations, movements, experiences, thoughts.
- **where next** - what will you choose to track for now? (**where can you reach an "island of safety"?**)
- **we will return to work with this again** - with more capacity the next times around
- You may notice that **distress will diminish, ease will increase**

Somatic Experiencing's 9 basic tools for renegotiating / transforming trauma 1.

Steps 1, 2 and 3 must occur first and must follow sequentially

1. Establish an environment of *relative safety*
2. Support initial *exploration* & *acceptance of sensation*. (Learn *tracking* with *curiosity* – the “*nonjudgmental awareness*” of *mindfulness*)
3. Establish *pendulation* and *containment*: utilizing the innate power of *rhythm*.

Wellness Skills of the Trauma/Community Resiliency Model

1. TRACKING

4. GROUNDING

2. RESOURCING

5. SHIFT AND STAY

3. RESOURCE INTENSIFICATION

6. AMP DOWN/RAMP UP (Help now!!)

7. TITRATION

8. PENDULATION

9. COMPLETION OF DEFENSIVE RESPONSES

TRM includes skills of Somatic Experiencing

TRM Workbook
& iChill app

Peter Levine: “In trauma, a person is **locked in** the **fight, flight** or **freeze** response & is functioning primarily from the brainstem.

The language of the brainstem is the **language of sensation**.

So if you are trying to help the person work with the core of the trauma response, **you have to talk to that level of the nervous system.**”

with therapeutic tools that reset the vagal system

And we also need to listen to it with greater awareness & understanding.

We're all already listening to the language of sensation
Continuously. . .

Neuroception:
an organism's ability to detect risk & safety
outside the realm of awareness

It's inherent in our biology

We constantly sense our experience, scanning for threat & safety

Tracking for intentional movement
temporal cortex picks up information about
intentionality of biological movement.



We **track** each other and our surroundings constantly & respond or react accordingly.

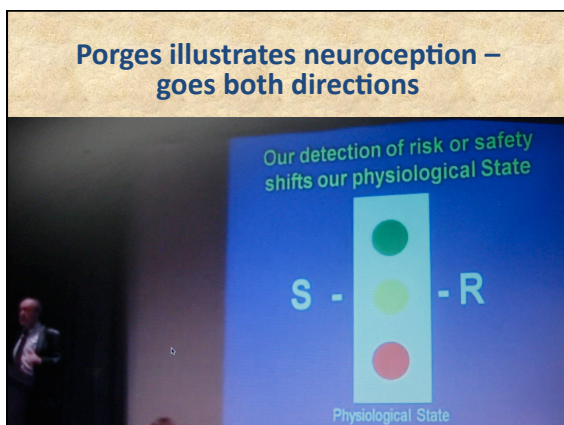
We usually only **track ourselves** closely **when something seems wrong**.

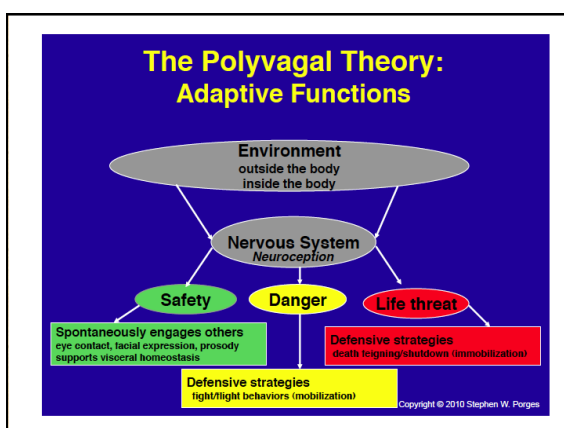
Exclusively tracking for danger can get in the way of feeling safe, connecting & healing.

Failing to track for danger is equally - dangerous.

Adaptive strategies >> Limiting >> Life Threatening







“Negativity Bias”

A nervous system overwhelmed by traumatic experience tends to track unpleasant inner sensations much more than pleasurable ones.

It scans the environment for threat - urgently. Even when no potential threat is present, it misses signals of safety & comfort.

Neutral / “normal” sensations are beneath its radar.

This **intense focus on what is/might be wrong** helps keep the experience of threat primary in awareness.

Trauma is not in the past event; it’s in the ongoing experience of threat

“Faulty neuroception” may lie at the root of

- autism
 - schizophrenia
 - anxiety disorders
 - depression (Porges’ list)
 - reactive attachment disorder
 - **syndromal conditions**
 - chronic pain (Levines’ list)
 - back, neck, shoulder
 - IBS, migraines, asthma, hypertension -
 - fibromyalgia, chronic fatigue syndrome,
 - autoimmunity
- Common ACE symptoms**

**When my Nervous System is balanced
and my activation is low
I feel:**

Open, curious	Relaxed yet alert
Embodied	Appropriately reactive
Available for connection	Able to be present
Fluid, resilient	Emotionally stable
Competent - a sense of mastery	Healthy - symptoms are manageable

I have choices and options

I recognize when I am moving out of my functional range
and have tools to return to stability and stabilization

I know when to reach out for support
when I can't do it on my own

“Knowing that the body can heal itself - and it will -
if we just get out of here (head)
and come back into here (body).
And let it happen.”

Gwen Morse TRI program manager & Air Force veteran

- “Once you learn the skills, it gives you control back.”
- “Get back into your zone, ground yourself, think about your resources, get back into the zone where I could deal with life.”

Some of the ways that you can feel better in mind,
body and spirit are not very complicated.

The most important thing is that there's hope.

We're going to be paying attention to sensations of nervous system activation & balance

If I could learn the tools that would help me and transfer it to someone else . . .

What affects me also affects my wife, my kids and everyone around me

Life gets better as we learn what affects us and how to treat those symptoms.

There's a lot of hope ; we don't have to live a life full of pain.

Army vet's experience with CRM

Community Resiliency Model

teaches a set of 6 wellness skills for self-care in order to reset the balance of the nervous system.

- Learn simple biologically based skills based on current neuroscience.
- Reduce symptoms related to stressful/traumatic experiences
- Create "trauma-informed" and "resiliency-focused" individuals and communities.
- Identify 3 or more ways to use these skills in activities of daily living. (Skills you can use when we're not together, especially at 'choice points')

CRM training flier

My Safety Plan

A safety plan is your plan for dealing with:

- Triggers
- Red Flags
- Unsafe Situations

People you can call:

Name: _____
Phone: _____

Name: _____
Phone: _____


Safe places you can go:

If you are by yourself, what safe coping skills will you use?

Write out a detailed plan for dealing with stressful situations. (Staying clean and sober, choosing safe, not dangerous people for support, not self-harming or other unsafe behaviors)

Learning to track skillfully
Greater awareness of what/how we are tracking
will guide us in
SEEKING SAFETY & making safer choices

**How do I feel &
know what is
safe?**
**How do I enhance
my capacity to
experience & to
offer safety?**



Islands of safety



Oases in the desert



Goldilocks moments



**The Social Engagement System -
in the shelter of each other**
ventral vagus

**Smiling,
Laughing,
Sharing**

**Expression
Tone of
voice,
Touch**



**Social engagement arises from and increases our
felt sense of safety.**

Our greatest tool – our presence
 Neuroception & social engagement explain why it can be so powerful.

- Awareness of our own & our client's state.
- Our capacity to track sensation – and external signs of sensation makes conscious that which is usually invisible, allowing greater choice.
- Mirror neurons: we resonate with the felt sense of another – empathy ~ “in the resonance”
- Our capacity for self-regulation (equanimity & compassion) keeps us in our own grounded state, not drawn into the activated state of another.
- Connection: noninvasive warmth, calm tone of voice, gentle eyes, comforting touch (if appropriate)

Ours becomes the nervous system our clients' nervous systems can bio-entrain with – a message of safety directly to the brainstem


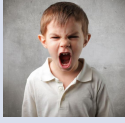






Hierarchy of calming
 Some things penetrate a distressed state faster and more effectively than others.

It starts with the ears during co-regulation with another person. When we hear prosodic words (warm and melodic intonations), the muscles in the ears relax, then the muscles in the eyes and face. Our-breath deepens, the heart calms, and the sympathetic defense system down-regulates.

Is fear present? - The critical difference		
With Fear	Physiological Branch	Without fear the SES stays online
Tend/Befriend (anxious caretaking + self-neglect)	Ventral Vagal	Social engagement
Fight/Flight	Sympathetic	Play/foreplay/excitement (roller coaster ride)
Freeze	Dorsal Vagal	Loving mutually-supportive behavior, digestion, nursing, post- orgasmic glow, meditation

SES = Social Engagement System

Speaking and hearing the language of the vagus		
Social Engagement Connection Ventral Vagus on	Mobilization Sympathetic Vagal brake off	Freeze Dorsal Vagus Emergency brake on
		
Prosody (rhythm) tender soft, low	Angry, pressured high-pitched or rapid	Dull monotone
Smiling eyes welcoming	Glaring or darting eyes	Vacant eyes "absent"

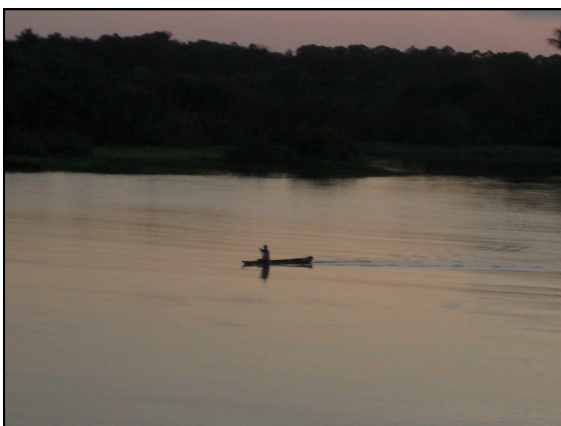




Neuroception practice
Tracking ourselves and others
(empathy / resonance)

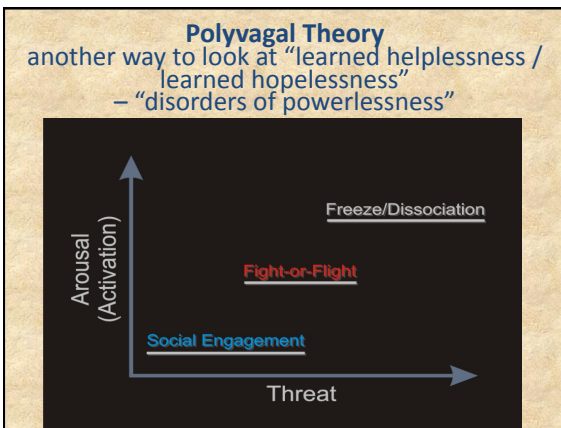
Is the dorsal or **ventral** vagus
firing
or
has **sympathetic** kicked in?
And what will happen next?

Tracking the vagal response helps
us be more skillful with “next”.







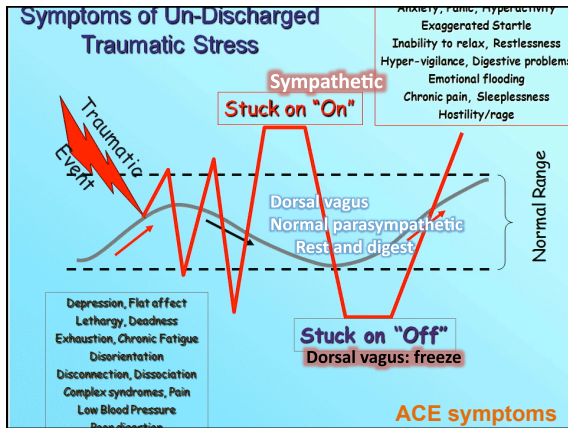


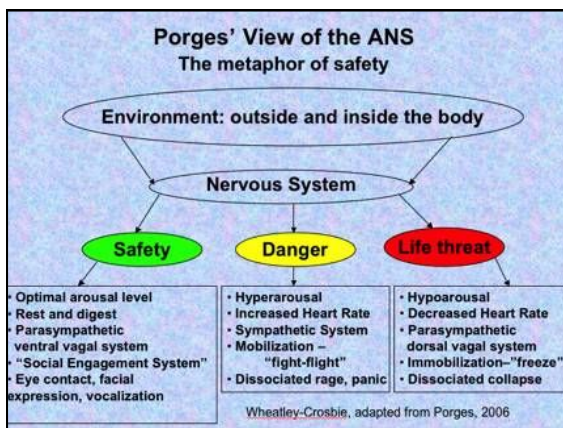
Questions dissociated people ask:

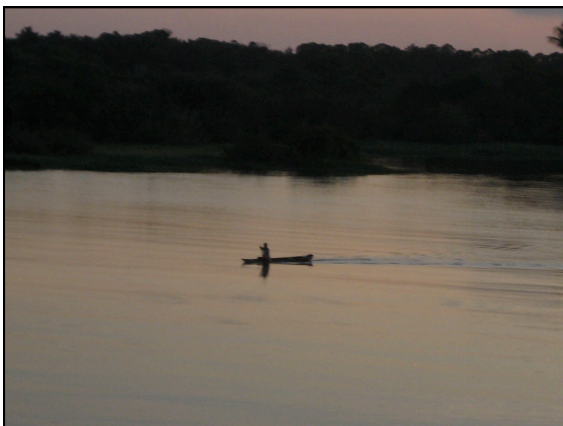
- Why don't I feel like myself?
- Why do those pictures keep popping into my mind?
- Why am I having stomach problems?
- Why can't I sleep?
- Why is my heart racing all the time?
- Why do I feel like something bad is always going to happen?
- Why do I feel numb and depressed?
- Why do I feel so disconnected from everyone?

ACE challenges

TRAUMA RESILIENCY MODELWORKBOOK Revised by: Elaine Miller-Karas, LCSW





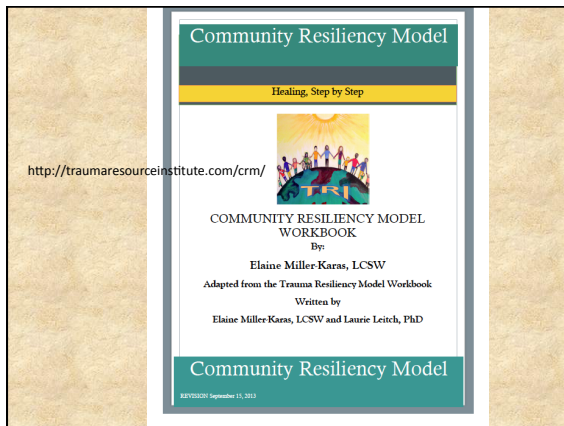


Coming 'back':
reorient to the room,
to each other,
and our purpose
for coming together as a
trauma-informed,
resiliency-oriented
compassion-based
community

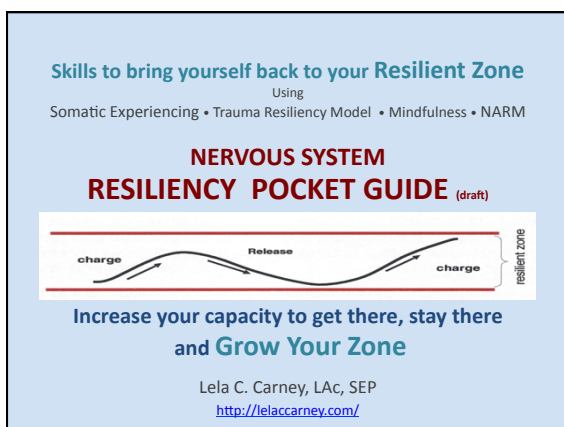
Could our work become more
effective if we enhanced our skills
based in an understanding of the
Polyvagal nervous system?

How could we support each other
to master those skills?

- 1) What is PV theory – overview & describe the flaws it fixes in our model of the autonomic nervous system
 - 2) Why I'm so committed - its precision makes treating trauma more effective
Clinical efficacy is validated in research.
It helps me understand my own ACE-related health challenges and fine-tune my adaptive choices
 - 3) Principles of therapeutic practice - quick overview *
 - 4) **Tracking**: the dual role of this fundamental adaptive strategy/skill & its applications for healing (~ mindfulness)
 - 5) Sources, resources and how we can learn more together.
 - 6) Recommendation: We consider sponsoring a Community Resiliency Model Training for our community.
- Applied Polyvagal study group / day-long seminar





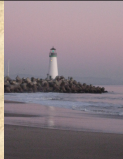




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"Gut to Brain"

- Voo breath: "finding safe harbor" in context of tracking, pendulation and titration
- Four purifications of Ayurveda
- Hara/Dan Tian breathing of Chinese medicine
- Abdominal self-massage


Push the Wall
**Use your muscles & joints as allies
when you feel flooded**

Push slowly against a wall - with awareness - tracking sensations.
"Let's push together; I'll push beside you."

Notice your muscles pushing and your joints flexing and holding.

Titrate and pendulate !

Pause and track the shifts as they move through, especially noticing any sensations of **strength, power** and **containment**









Awakens mobilization - use titration and pendulation

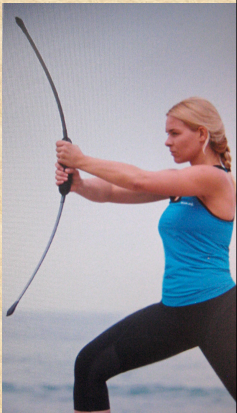
Re-establishes rhythm



JumpSport or *Bellicon* rebounders with bungees, not springs

BodyBlade

Re-establishes rhythm, works with vibration & inertia for core stabilization, strength & balance



Sensation-based language

OPENING Constricted *Lightness*

Jagged Warmth

Itching Strong BUZZING

Fiery *Tingling*

Relaxing Coldness

Tracking exercise



Check in – tracking shifts in experience

If you sense how you're feeling now, after seeing that slide

- Did the image evoke any swing from safe to alarm, or from uncomfortable to pleasurable - or the other direction? Or to a **neutral** sensation?
- Can you **track neutral** sensations? (different from numb)
- How is it to stop & tune in to yourself? Just being with. . .
- How's your chair feeling for you? Your posture? Your feet?
- Are you noticing any judgments (we usually "hear" them.) Are you having any sensations you tend to criticize yourself for having? Or worry about?
- What happens when you intentionally focus more on a **pleasurable** or **calming** sensation, not an uncomfortable or unsettling one? Is it easy or challenging to shift your focus toward comfort in this moment, in this environment?
