

**LIVE ASI THEORY TUESDAYS**  
 CLASI & SOUTHPAW FREE WEBINAR SERIES

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**June 27, 5pm PDT (California time)**  
**SENSORY REACTIVITY, STRESS, AND RESILIENCE**

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### National Institute of Health (US) Research Domain Criteria

Arousal Regulation is Transdisciplinary & Transdiagnostic, as are Sensorimotor Systems

**ENVIRONMENT**

**Behavioral Dimensions**

**DOMAINS**

- Negative Valence
- Positive Valence
- Cognitive Systems
- Systems for Social Processes
- Arousal/Regulatory Systems
- Sensorimotor Systems

**GENES** **MOLECULES** **CELLS** **CIRCUITS** **PHYSIOLOGY** **BEHAVIOR** **SELF-REPORTS**

**Neural Systems**

**NEURODEVELOPMENT**

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## Arousal Regulation is Transdisciplinary and Transdiagnostic



## States of Arousal Have Distributed Properties

While connected to the Autonomic Nervous System, states of arousal hold distributed properties as they occur across brain networks in terms of:

- 1) The degree of alertness to sensory stimulation,
- 2) The degree of emotional reactivity, and
- 3) The degree of motor activity.

Pfaff. 2006, *Brain Arousal and Information Theory: Neural and Genetic Mechanisms*. Cambridge, MA: Harvard University Press, (pg 5).

## Reframe Challenging Behavior!

Behavior Emerges from the Body-Up

**THE NEURORELATIONAL FRAMEWORK'S**  
**Safety-Challenge-Threat Triad**

**STEP 1**

**SAFETY**  
Connect  
Co-regulate  
Understand Needs

**CHALLENGE**  
Reflect on Needs  
Match Development  
Try, Evaluate, & Tweak  
Reduce Demands

**THREAT**  
Fight/Flight  
Fitting/Frenzied  
Fright/Freeze  
Flat

**WATCH FOR**

**TWO WAY**

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## How Do We Assess for Safety?

Sleep  
 Green Zone

**THE NEURORELATIONAL FRAMEWORK'S**  
**Sleep-Wake States Arc**  
SUPPORTS HEALTH

**STEP 1**  
ROOTS

**“JUST RIGHT” CALM & ALERT**

**green zone**

**blue zone**

**red zone**

**combo zone**

**BRAKE**

**GAS**

**BRAKE & GAS**

**states of safety**

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# How Do We Assess for Challenge & Threat?

## 4 Primary Stress Responses

THE NEURORELATIONAL FRAMEWORK'S  
**Awake States Pie**  
ARE YOU IN THE GREEN?

The Awake States Pie is a circular diagram divided into four quadrants, each representing a different state of awareness and stress response:

- Green Quadrant ("Just Right"):** Bright, Shiny Eyes; Calm and Alert.
- Red Quadrant ("Tantrum"):** Flitting; Frenzied; Aggressive; Fight or Flight; Panic; Fear; Fight.
- Blue Quadrant (In Own World):** Glassy-Eyed; Flat; In Own World; Sad; Anxious.
- Orange Quadrant (Frenzied):** Flitting; Frenzied.

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# How Can You Document What Stress Looks Like?

## Awake States Indicators

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

These biomarkers are used to describe individual differences, culture, context, and clusters of biomarkers are critical components to informing the awake states.

RED ZONE Too Fast/Too Peril	BLUE ZONE Too Slow/Brake	COMBO ZONE Fast & Jerky/Slow & Brake	GREEN ZONE Just Right/Alert
<b>EYES</b> <ul style="list-style-type: none"> <li>Open, squinted or tightly closed eyes</li> <li>Eyes look quickly around the room or not attending to person or object of focus</li> <li>Walls are dilated</li> <li>Frequent blinking</li> </ul> <b>FACIAL EXPRESSION</b> <ul style="list-style-type: none"> <li>Wide, open mouth</li> <li>Forced smile</li> <li>Clenched jaw or teeth</li> <li>Giddy</li> </ul> <b>VOICE</b> <ul style="list-style-type: none"> <li>High-pitched yelling or screaming</li> <li>Loud, shrill, piercing</li> <li>Out of control laughing</li> <li>Non-Stop talking</li> </ul> <b>BODY POSTURE/GESTURES</b> <ul style="list-style-type: none"> <li>Increased muscle tension</li> <li>Pushing, shoving, biting, and intruding into others' space</li> <li>Kicking, throwing, jumping, climbing, hitting</li> <li>Bumps into things, falls</li> <li>Hopping or restless moving one's mouth, fingers, hands &amp; legs, shaking with hair or objects</li> <li>Moving frequently from activity to activity, high levels of mouth-tapping</li> <li>Animated postures</li> </ul> <b>RHYTHM/RATE OF MOVEMENT</b> <ul style="list-style-type: none"> <li>Fast movements</li> <li>Impulsive and/or jerky movements</li> <li>Constant motion</li> </ul> <b>RHYTHM/RATE OF BREATHING</b> <ul style="list-style-type: none"> <li>Fast, shallow</li> </ul>	<b>EYES</b> <ul style="list-style-type: none"> <li>Dilated, glassy eyes (looks through rather than at)</li> <li>Looks away for a long time, looks down</li> <li>Does not look around the room</li> <li>Does not look at or towards new events</li> <li>Looks at things more than people</li> <li>Tired eyes</li> </ul> <b>FACE</b> <ul style="list-style-type: none"> <li>Flat/blank</li> <li>Mouth turned down, sad</li> <li>No smiles or hints of smiles</li> <li>Fine emotions shown</li> <li>Low tone in the cheeks</li> </ul> <b>VOICE</b> <ul style="list-style-type: none"> <li>Flat</li> <li>Makes few to no sounds</li> <li>Sounds cold, soft, sad, too quiet</li> <li>Mono-tone</li> </ul> <b>BODY</b> <ul style="list-style-type: none"> <li>Slumped/slouching</li> <li>Low muscle tone, floppy</li> <li>Little or no exploring play or curiosity</li> <li>Wanders aimlessly</li> </ul> <b>RHYTHM/RATE OF MOVEMENT</b> <ul style="list-style-type: none"> <li>Slow movements</li> <li>Slower to start moving</li> <li>Frozen, no startle response</li> </ul> <b>RHYTHM/RATE OF BREATHING</b> <ul style="list-style-type: none"> <li>Slow, shallow</li> </ul>	<b>EYES</b> <ul style="list-style-type: none"> <li>Wide open eyes</li> <li>Stares at things</li> <li>Frequent breaks in eye contact</li> <li>Looks around with darting eyes</li> </ul> <b>FACE</b> <ul style="list-style-type: none"> <li>Raised eyebrows</li> <li>Trembling lips or mouth, scared</li> <li>Mouth wide open</li> <li>Nasal flaring</li> <li>Furrowed brow, worried</li> <li>Lip compression, pursed lips</li> <li>Startled expression, surprised</li> </ul> <b>VOICE</b> <ul style="list-style-type: none"> <li>High-pitched, nasal, sleep-sounding voice</li> <li>Whispers, weak voice</li> <li>Witchy/guttering voice</li> <li>Fast changes in tone or pitch</li> <li>Pleading</li> </ul> <b>BODY</b> <ul style="list-style-type: none"> <li>Tense or rigid posture</li> <li>Wincing, cowering, crouching, or hiding</li> <li>Trembling hands</li> <li>Clings or grabs others</li> <li>Falls around</li> </ul> <b>RHYTHM/RATE OF MOVEMENT</b> <ul style="list-style-type: none"> <li>Shy movement, still body</li> <li>Disruptive movements (rocking, pacing, wrings hands, shakes foot)</li> <li>Fast movements</li> <li>Jerky movements</li> </ul> <b>RHYTHM/RATE OF BREATHING</b> <ul style="list-style-type: none"> <li>Uneven breathing</li> <li>Shallow breathing</li> </ul>	<b>EYES</b> <ul style="list-style-type: none"> <li>Bright, shiny eyes</li> <li>Looks directly at people, objects with a gleam</li> <li>Looks away for breaks, then returns to eye contact</li> </ul> <b>FACE</b> <ul style="list-style-type: none"> <li>Smiles, shows joy</li> <li>Neutral</li> <li>Can express a range of all emotions - appropriate to context</li> </ul> <b>VOICE</b> <ul style="list-style-type: none"> <li>Laughing</li> <li>Fluctuates in tone - appropriate to context</li> <li>Fluctuates in speed - appropriate to context</li> <li>Melodic</li> </ul> <b>BODY</b> <ul style="list-style-type: none"> <li>Relaxed with good muscle tone</li> <li>Stable, balanced and coordinated movements</li> <li>Moves arms and legs toward center of the body</li> <li>Molds body into a caring adult when held</li> <li>Gestures are coordinated with body movements</li> </ul> <b>RHYTHM/RATE OF MOVEMENT</b> <ul style="list-style-type: none"> <li>Laughs</li> <li>Changes smoothly to respond to the environment</li> <li>Moves faster or slower - appropriate to context</li> </ul> <b>RHYTHM/RATE OF BREATHING</b> <ul style="list-style-type: none"> <li>Regular, even breathing</li> </ul>

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## THE NEURORELATIONAL FRAMEWORK'S How Do We Identify Toxic Stress Patterns?

### How Do We Assess & Document Adaptive vs. Toxic Stress?

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## THE NEURORELATIONAL FRAMEWORK'S Four Brain Systems SUPPORT CUSTOMIZED AND COLLABORATIVE CARE

### What Do We Do? Individualize Care, Using Bottom-Up Sensory-Motor Preferences!

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**How Can We Gain  
Access to These Materials?**

[www.NRFcare.org](http://www.NRFcare.org)

<p><b>FREE STARTER KIT: 8 Free Handouts in English &amp; Spanish with Videos in English (Spanish to come!)</b></p>	<p><b>INTERACTIVE MANAUL SUBSCRIPTION FOR ALL HANDOUTS</b></p>	<p><b>PRINTED MANUAL</b></p>
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