Taking Trauma-Informed, Social-Emotional Learning to the Next Level

Judith Norman, Synergetic Education Institute
SynergeticEducation.com

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1. **BRAIN STATES & STRESS RESPONSES**
   The neuroscience behind actions

2. **BODY STATES**
   Nervous system states of regulation and dysregulation

3. **TIMELINE APPROACH**
   Before, After, and In The Moment

4. **STRATEGIES & SUPPORT**
   Putting it all together

**FLIPBOOK:**

**THINKING**
SAFE, ALERT

**EMOTIONS**
ALARM

**SOMATOSENSORY**
FEAR

**SURVIVAL**
TERROR

**CORTEX**
**LIMBIC REGION**
**MIDBRAIN**
**BRAINSTEM**
What’s possible in each state?

Question 1: Were they able to process what I was asking them to do?

<table>
<thead>
<tr>
<th>Brain State</th>
<th>Functional IQ</th>
<th>Sense of Time</th>
<th>Sphere of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortex - Safe</td>
<td>110-100</td>
<td>Future</td>
<td>World</td>
</tr>
<tr>
<td>Cortex - Alert</td>
<td>100-90</td>
<td>Week or Day</td>
<td>Community</td>
</tr>
<tr>
<td>Limbic - Alarm</td>
<td>90-80</td>
<td>Hours or Minutes</td>
<td>Family or Close Peers</td>
</tr>
<tr>
<td>Midbrain - Fear</td>
<td>80-70</td>
<td>Minutes or Seconds</td>
<td>Self</td>
</tr>
<tr>
<td>Brainstem - Terror</td>
<td>70-60</td>
<td>Loss of Sense of Time</td>
<td>Body Integrity</td>
</tr>
</tbody>
</table>

Based on Bruce Perry’s Neurosequential Model, Child Trauma Academy

STRESS

Stress is contagious.

When stress exceeds one’s abilities to manage it in the moment, the brain moves from higher regions to lower regions.

Mirror Neurons
### Understanding and Recognizing Brain States

<table>
<thead>
<tr>
<th>Part of the Brain</th>
<th>Brain State Responses</th>
<th>Options &amp; Challenges</th>
<th>Regulatory Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortex</td>
<td>Calm/Safe “Reflect”</td>
<td>Many behavioral and cognitive options are available</td>
<td>Instructive breathing and other exercises</td>
</tr>
</tbody>
</table>
| Cortex            | Alert “Flock”         | BEHAVIORAL CHALLENGES: Engaging in something new or challenging  
COGNITIVE CHALLENGES: Creativity Spotlight focus | Reassurance  
Connection  
Information about what to expect |
| Limbic            | Alarm “Freeze”        | BEHAVIORAL CHALLENGES: RELATIONAL  
Managing emotions  
Attunement or empathy  
Sharing and forming relationships  
COGNITIVE CHALLENGES: Short term memory/learning | One on one support/ Proximity to attuned adult  
Caring prosody and tone of voice  
Parallel interactions (not face to face)  
Modeling regulatory behavior not telling  
Smaller and slower movements  
Do something together that isn’t challenging |
| Midbrain          | Fear (Looks like anger) “Flight” | BEHAVIORAL CHALLENGES: MOTOR, SENSORY & REGULATORY  
Large and fine motor skills  
Tendency towards sensory seeking or avoiding Impulsivity  
COGNITIVE CHALLENGES: Attention – tendency towards daydreaming Transition, Processing input accurately | Complex rhythmic movement (tap out rhythm to repeat)  
Slow controlled large muscle movements Isometrics (chair push-ups)  
Walk/Run/E xercise Bilateral movement Creative arts, Music, Drumming, Dance Doodling (you remember 60% more) Hold yoga ball against wall with your back |
| Brainstem         | Terror (Looks like rage) “Fight” | BEHAVIORAL CHALLENGES: SELF-GOVERNING ISSUES  
Shifting attention  
Abnormal body temperature, eye blink or movements  
Skin sensitivities  
Need to have something in mouth or chew gum.  
COGNITIVE CHALLENGES: Not able to take in any information | Rhythmic patterned input (things we do with babies)Swinging or Rocking (rocking chairs) Bouncing (yoga ball, bouncy chairs) Balance Slow stretching or Yoga Chewing/Sucking (chew stixx, pencil topper chews) Calming pictures or scents |

<table>
<thead>
<tr>
<th>Part of the Brain</th>
<th>Cognitive Ability</th>
<th>Functional IQ</th>
<th>Heart Rate</th>
<th>Sense of Time</th>
<th>Sphere of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortex</td>
<td>Think Abstractly</td>
<td>110-100</td>
<td>70-90</td>
<td>Future</td>
<td>World</td>
</tr>
<tr>
<td>Cortex</td>
<td>Think Concretely</td>
<td>100-90</td>
<td>90-100</td>
<td>Week or Day</td>
<td>Community</td>
</tr>
<tr>
<td>Limbic</td>
<td>Responds Emotionally</td>
<td>90-80</td>
<td>101-110</td>
<td>Hours or Minutes</td>
<td>Family or Close Peers</td>
</tr>
<tr>
<td>Midbrain</td>
<td>More Reactive</td>
<td>80-70</td>
<td>111-135</td>
<td>Minutes or Seconds</td>
<td>Self</td>
</tr>
<tr>
<td>Brainstem</td>
<td>More Reflexive</td>
<td>70-60</td>
<td>136-160</td>
<td>Loss of Sense of Time</td>
<td>Body Integrity</td>
</tr>
</tbody>
</table>

Based on Bruce Perry’s Neurosequential Model, Child Trauma Academy, [http://childtrauma.org](http://childtrauma.org)  
Judith Norman ©2018, 2021
Responses to what the environment looks and feels like in that moment.

I'm able to relax, **connect with myself** and **others**, and think. People and things matter to me, and I'm interested in learning.
I’m ALERT and checking out my surroundings. I’m looking around to figure out what information will help me make sense of things. I’m feeling nervous about doing things that seem new or challenging. My thinking is more concrete so I might struggle with things that require creative thinking. If I know what to expect, and feel connected, I can still learn.

I’m ALARMED because I perceive a real threat. I am paying attention to all movements and sounds but likely won’t process them accurately. My sense of safety is deteriorating and I’m beginning to feel overwhelmed.

The only information I’m processing is what feels relevant to staying safe. My body is frozen as I’m assessing the danger. I need someone to authentically connect with me and help me move back towards my window of tolerance.
I’m AFRAID and feel a complete lack of safety. Everything feels like a threat, including you. I’ve completely disconnected from others and am only aware of myself at this very moment. I’m trying to figure out if there’s a way to get away. I need an external regulator to support me in grounding and regulating.

Question 2: Am I seeing escalation in their behavior?

I’m TERRIFIED and in survival mode. My behavior is instinctive, I’m mobilizing everything in my power to stay alive. I’m not thinking nor aware of you or my surroundings. I need an external regulator to keep me safe.
**SAFE:** I’m able to relax, **connect with myself and others**, and think. People and things matter to me, and I’m interested in learning.

**OUT OF CONTROL:** I’m TERRIFIED and in survival mode. My behavior is instinctive, I’m mobilizing everything in my power to **stay alive**. I’m not thinking nor aware of you or my surroundings. I need an external regulator to keep me safe.

**ON GUARD:** I’m ALERT and **checking out my surroundings**. I’m looking around to figure out what information will help me make sense of things. I’m feeling nervous about doing things that seem new or challenging. My thinking is more concrete so I might struggle with things that require creative thinking. If I know what to expect, and feel connected, I can still learn.

**CHARGED:** I’m ALARMED because I perceive a real threat. I am paying attention to all movements and sounds but likely won’t process them accurately. My sense of safety is deteriorating and I’m beginning to feel overwhelmed. The only information I’m processing is what feels relevant to staying safe. My body is **frozen as I’m assessing** the danger. I need someone to authentically connect with me and help me move back towards my window of tolerance.

**REACTIVE:** I’m AFRAID and feel complete lack of safety. Everything feels like a threat, including you. I’ve completely disconnected from others and am only aware of myself at this very moment. I’m trying to figure out if there’s a way to **get away**. I need an external regulator to support me in grounding and regulating.

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The Nervous System

Perception of threat determines activation of states of hyper-arousal or hypo-arousal.

**Dysregulated: Hyper-Arousal**
- Perception: “I perceive a threat and believe I can do something to alleviate the threat.”

**Regulated: WINDOW OF TOLERANCE**
- Perception: “I can handle this.”

**Dysregulated: Hypo-Arousal**
- Perception: “I perceive a threat and feel helpless.”

When outside my window of tolerance I have limited behavioral options.

**Where does the energy go?**

**Hyper-arousal**

**Hypo-arousal**
### States of Arousal

<table>
<thead>
<tr>
<th>Dys-Regulated Nervous System</th>
<th>Regulated Nervous System</th>
<th>Dys-Regulated Nervous System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hyper-Arousal</strong></td>
<td><strong>Within our Window of Tolerance</strong></td>
<td><strong>Hypo-Arousal</strong></td>
</tr>
<tr>
<td>Energy goes to our extremities, our head/face, arms/hands, and legs/feet, as we prepare to “take on” a perceived threat.</td>
<td>Feeling “grounded”</td>
<td>Energy goes inward as we prepare to “shut down” to protect ourselves from a perceived threat.</td>
</tr>
</tbody>
</table>

### Sensations

<table>
<thead>
<tr>
<th>The following body states or sensations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased heart rate</td>
</tr>
<tr>
<td>Sweaty palms</td>
</tr>
<tr>
<td>Highly Irritable</td>
</tr>
<tr>
<td>Overwhelmed or overwhelming others</td>
</tr>
<tr>
<td>Anxiety</td>
</tr>
<tr>
<td>Defensive or Aggressive</td>
</tr>
<tr>
<td>Hyper-alertness - hears/sees everything</td>
</tr>
<tr>
<td>Hyper-vigilance - seems ready to pounce</td>
</tr>
</tbody>
</table>

### Behaviors

<table>
<thead>
<tr>
<th>The following on-going excessive behaviors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting in others’ space</td>
</tr>
<tr>
<td>Moving from thing to thing</td>
</tr>
<tr>
<td>Spinning, Jumping, Pounding</td>
</tr>
<tr>
<td>Making noises/sounds</td>
</tr>
<tr>
<td>Calling out</td>
</tr>
<tr>
<td>Jumping from thought to thought</td>
</tr>
<tr>
<td>Biting nails or shirt</td>
</tr>
<tr>
<td>Chewing or Tapping pencil</td>
</tr>
</tbody>
</table>

| Feeling “grounded”                       |
| Able to recognize physiological sensations |
| Able to notice breath                     |

| Displaying wide range of emotional expression |
| Ability to initiate and inhibit            |
| Able to focus and shift focus             |
| Thinking logically and clearly            |
| Communication effectively                 |
| Holding up body without great effort      |
| Able to change pace of movements         |
| Demonstrating self-regulation             |

| Seems numb, unable to feel body          |
| Shuts down                                |
| Lethargic                                 |
| Excessively tired                         |
| Non-expressive                            |
| Lack of motivation or initiative         |

| Withdrawn or Won't participate           |
| Says "I can't" or "It's too hard"        |
| Easily gives up                          |
| Whining                                  |
| Unresponsive to others                   |
| Can't make choices                       |
| Overly compliant                         |
| Covers face or head or Head on desk      |
| Slumped forward or Collapsed body        |
| Arms or legs pulled into self            |

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Synergetic Play Therapy™ Regulation Activities for School
Listed below are just some examples of activities that can be used to help regulate a dys-regulated nervous system. It is wise to do these activities pro-actively, as well as in moments of dys-regulation.

Put your hand in front of your mouth, on your chest or on your belly and "find your breathe"  
Belly breathing, or other breathing  
Interlace your fingers and put your hands behind your neck with your elbows out to the sides  
Sit in a chair and push up with your arms as if trying to get out of the chair, keep some resistance or do Chair yoga  
Deep pressure on arms and legs. Squeeze your muscles  
Sway back and forth  
Use duck-walker, saucer twist or a balance board  
Take a wall  
Use alternate seating or standing desk  
Dim the lights if in hyper-arousal  
Play Mozart music in the background during challenging times of the day if in hyper-arousal  
Use Braindrops Language or other ways to talk about states of arousal  
Describe what is happening in your body out loud--- "My shoulders are tight", "My legs feel heavy", etc...  
Use a learning tool  
Balance on one foot, then the other  
Get a book, iPad, or computer  
Us  
Do isometrics, wall pushups or push hands together  
Run, jump, spin, dance with pauses to take deep breaths  
Use In Focus Activity  
Carry heavy things or push heavy things around  
Dance, or other rhythmic Movement  
Bounce on a yoga ball  
Do Brain Gym: PACE, cross crawls, hook ups  
Rub gently or vigorously on your skin or clothing  
Get a drink of water  
Put cold or hot water/wash cloth on face  
Eat (particularly something crunchy)  
Mindful listening, or other mindfulness activity  
Movement and/or Brain break  
March or sing during transitions  
Focus on one sense during Transitions  
Use GoNoodle  
Wrap up in a blanket, or use a weighted blanket or vest.  
Go to cozy corner, or find a pillow Or soft chair  
Turn on the lights if in hypo-Arousal  
Play Hard Rock/Fast/Bass music if in hypo-arousal
**Identifying Nervous System States**

- **Hyperaroused**
  - Getting in others’ space
  - Moving from thing to thing
  - Spinning, Jumping, Pounding
  - Making noises/sounds
  - Calling out
  - Jumping from thought to thought
  - Biting nails or shirt
  - Chewing or Tapping pencil

- **Regulated Inside Window of Tolerance**
  - Displaying wide range of emotional expression
  - Ability to initiate and inhibit
  - Able to focus and shift focus
  - Thinking logically and clearly
  - Communication effectively
  - Holding up body without great effort
  - Able to change pace of movements
  - Demonstrating self-regulation

- **Hypoaroused**
  - Withdrawn or Won’t participate
  - Says “I can’t” or “it’s too hard”
  - Easily gives up
  - Whining
  - Unresponsive to others
  - Can’t make choices
  - Overly compliant
  - Covers face or head or Head on desk
  - Slumped forward or Collapsed body
  - Arms or legs pulled into self

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My window of tolerance is not static. IT IS POSSIBLE TO INTENTIONALLY & EXPLICITLY grow windows of tolerance.

**Question 3:** What is their behavior telling me about their nervous system arousal state?

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**Reasonable Expectations & Goals**

- Thinking & Reasoning
- Connecting & Feeling
- Grounding & Regulating

“Sometimes we ask children to do things that are outside of their developmental or “in the moment” capability which leads to confusion and frustration for all.”

- Mona Delahooke
One foot in and one foot out

What do we mean by one foot in?
Having one foot in the dysregulation, means we are allowing ourselves to experience it we’re not trying to avoid it.

Why not just avoid it? Two Feet Out....
Neurons link together creating networks and patterns of behavior. If our pattern is to move away from certain experiences, this pathway is activated and strengthened over and over again. This pattern of avoidance reinforces the perception that we can’t handle that experience.

What do we mean by one foot out?
Having one foot out of the dysregulation, and instead in a regulated state, allows us to experience regulation in the midst of dysregulation.
This allows us to make a new connection in that moment and widen our window of tolerance. We begin to believe we can handle the experience.

One foot in and One foot out re-patterns our nervous systems and shifts our perceptions from “I can’t handle this,” to “I can handle this.”
TWO feet in
Co-escalation or Co-dysregulation

Thinking & Reasoning
- Explanations & Consequences
- Negotiations & Setting Norms
- Facilitate Creating a Coherent Narrative

They don’t have to like the conversation AND “before” and “after” is when they are capable of engaging in it.
Do I need to step in and use a bottom-up approach?

Question 1: Were they able to process what I was asking them to do?

Question 2: Am I seeing an escalation in their behavior?

Question 3: What is their behavior telling me about their nervous system arousal state?

Connecting

- Connect and redirect
- Speak through a part’s view
- Be real about how you feel

Moments of connection in the midst of dysregulation.
Co-regulating

- Remember to regulate you
- Name it to tame it
- Communication of physical sensation

Self Reflection & Interoception

Rupture and Repair

The foundation of healthy relationships.
Navigating Conflicts

Resources:
Managing Your Child’s Moods and Behaviors Online course $49
https://www.facebook.com/healbrightpage/videos/1712147559024168/

Teaching interoception
https://synergeticeducation.com/resources/
Click on link to use virtual regulation room, one space in the room is solely focused on teaching interoceptive awareness

Mona Delahooke Child Behavior Survey
https://monadelahooke.com/quiz/?fbclid=IwAR3PQfRm_gqHLXpgHIV3IC4b22CqTYRHa2-SS4sTDV9nefpFlzYlqNqP21o

Stay in touch with us at the Synergetic Education Institute!

Values
Relational Styles
Careful, Careless and Caring
Making Conscious Choices