


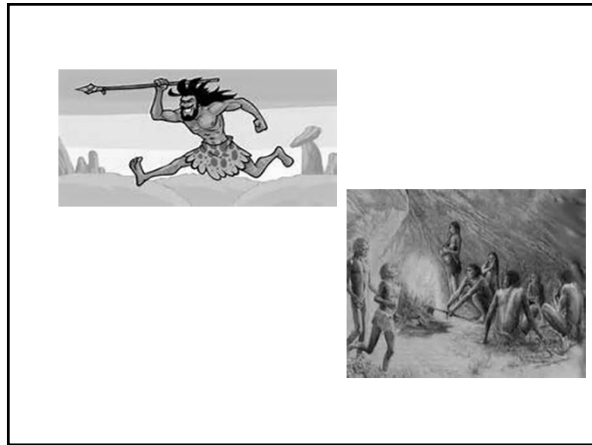
Strengthening Brain Pathways for Children

*Application of Neuroscience
Using the Polyvagal Theory*

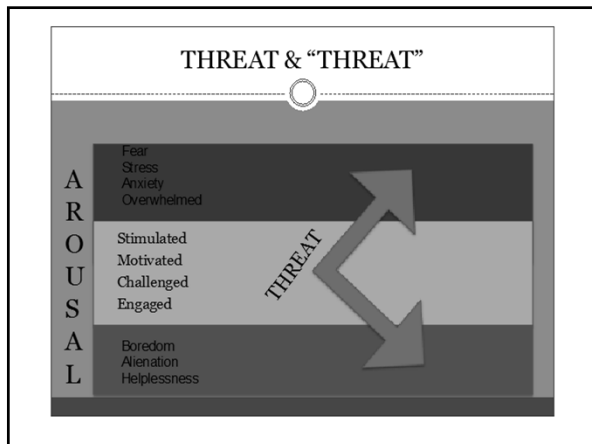
We Can't Wait Conference
 September 23, 2016
 San Diego, CA
 Chris Muecke, M.Ed,
 Vin Schroeter, PhD,
 Liz Maruchau, LCSW

The Body's Stress Response System





<https://www.youtube.com/watch?v=qm9CIJ74Oxw>




Evolution of the Autonomic Nervous System "The Ultimate Survival Machine"

Stage One: A primitive passive feeding and reproduction system creating a metabolic baseline of operation to manage oxygen and nutrient-rich blood.

Stage Two: A more sophisticated set of responses enabling mobility for feeding, defense and reproduction via limbs & muscles.

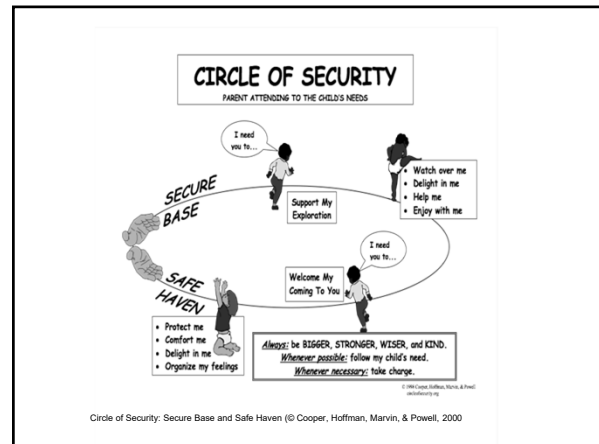
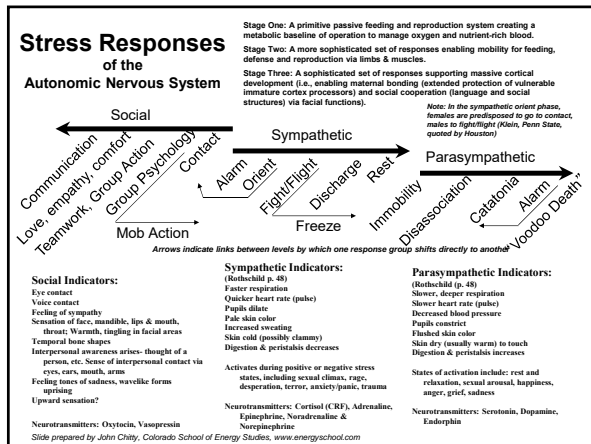
Stage Three: A sophisticated set of responses supporting massive cortical development (i.e., enabling maternal bonding (extended protection of vulnerable immature cortex processors) and social cooperation (language and social structures) via facial functions).



*"Three neural circuits form a phylogenically ordered response hierarchy that regulates behavioral and physiological adaptation to safe, dangerous and life-threatening environments."
-Porges 8/05*

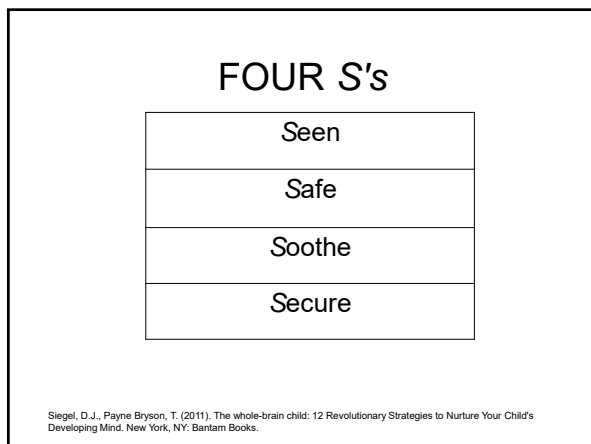
Social	Sympathetic
"Love" Transactions Social Structures & Hierarchies Language Empathy Contact Sexual Climax Recreational & Vocational Excitement (food, fight/flight, sex) Daytime alertness & muscular activity	Rest & Rebuild Meditative States Sexual Arousal Sleep (4 stages) Baseline Metabolism (Heart, Breath, Assimilation)

Slide prepared by John Chitty, Colorado School of Energy Studies, www.energyschool.com



- ### Increasing Release of Oxytocin
- (Anti-stress hormone)
- **Touch**
 - Head rub
 - Hugs
 - Rubbing polyvagal nerve
 - **Loving Connections**
 - Repeated exposure to those who love us
 - Hand on heart, bring up safe loving person
 - **Somatic Resourcing**
 - Deep Breathing into a relaxed body
 - Synchronize Breathing with a partner
 - Body Scans and Mindful meditations
 - Body posturing – postures to accentuate feelings (bioenergetics)
- Graham, L. (2013) *Bouncing back: rewiring your brain for maximum resilience and well being.* New World Library, Novato, CA

- ### Application of the PVT
- 4 S's
 - 12 Parenting Strategies
 - Essence of Adolescence



- ### 12 Parenting Strategies
- **Name It to Tame It:** Corral raging right-brain behavior through left-brain storytelling, appealing to the left brain's affinity for words and reasoning to calm emotional storms and bodily tension.
 - **Engage, Don't Enrage:** Keep your child thinking and listening, instead of purely reacting.
 - **Move It or Lose It:** Use physical activities to shift your child's emotional state.
 - **Let the Clouds of Emotion Roll By:** Guide your children when they are stuck on a negative emotion, and help them understand that feelings come and go.
 - **SIFT:** Help children pay attention to the **Sensations, Images, Feelings, and Thoughts** within them so that they can make better decisions and be more flexible.
 - **Connect Through Conflict:** Use discord to encourage empathy and greater social success.

Essence of Adolescence

- ES: An emotional spark is revealed in the enhanced way emotion generated from sub-cortical areas washes over the cortical circuits of reasoning.
- SE: Social engagement emerges as teens turn more toward peers than parents.
- N: Novelty-seeking emerges from shifts in the brain's dopamine system.
- CE: And our Creative Expression of adolescence is found as we push against the status quo.

Siegel, D.J. (2015) *Brainstorm*. New York, NY: Tarcher/Perigee.

Outcomes of Integrated Brain Pathways

Increasing time in the Window of Tolerance (**Green Zone**) results in:

- ✓ Balancing emotions
- ✓ Social confidence
- ✓ Self confidence
- ✓ School success

Questions?????

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