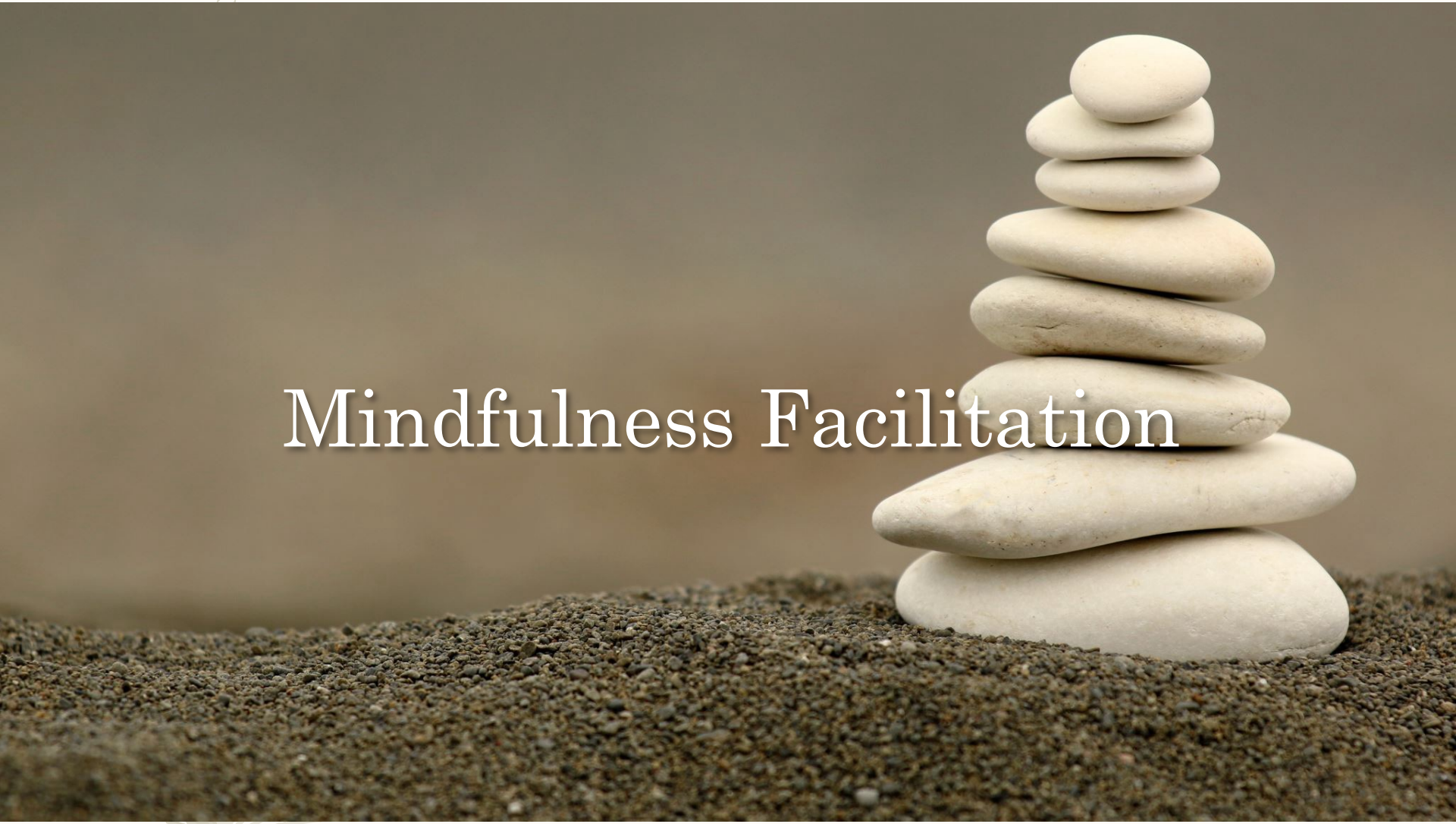
Trauma Informed Social Work:

Trauma and the Stress Response System

Week 5

Small Group Meeting

- 2:00 PM to 3:00 PM
- Please meet with your group to discuss your midterm paper prompts.
- 3:00 PM to 3:15 PM
- Break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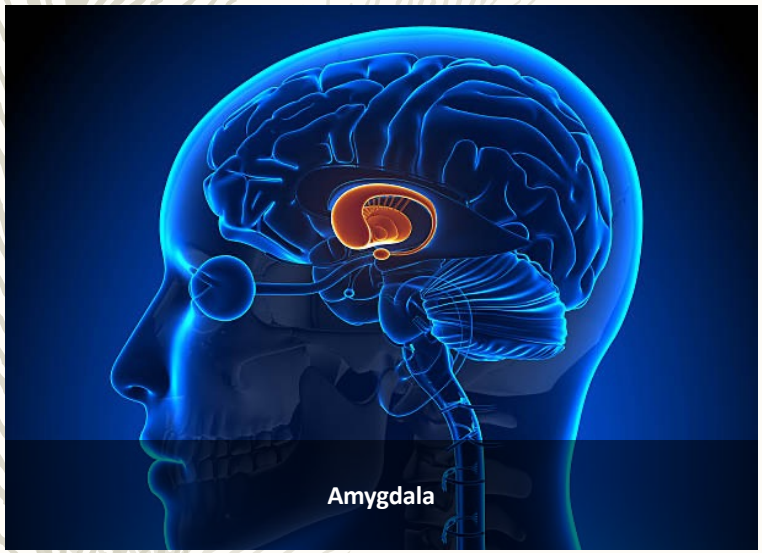
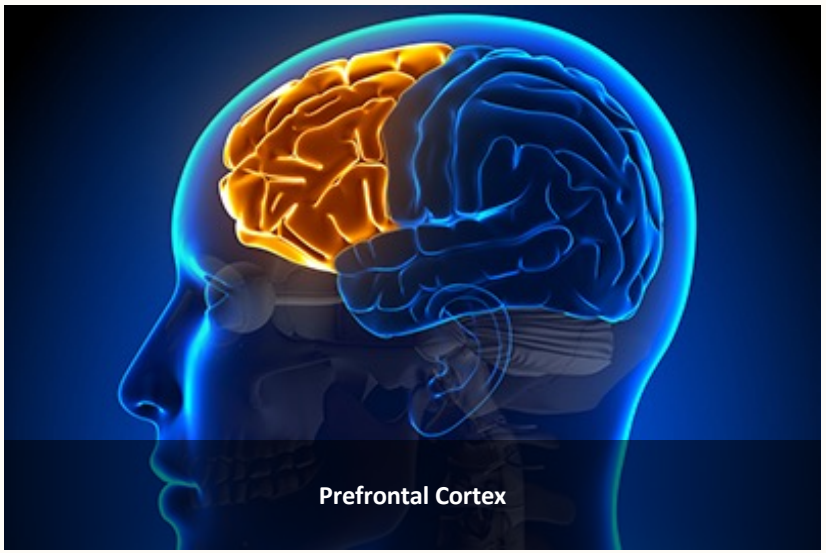
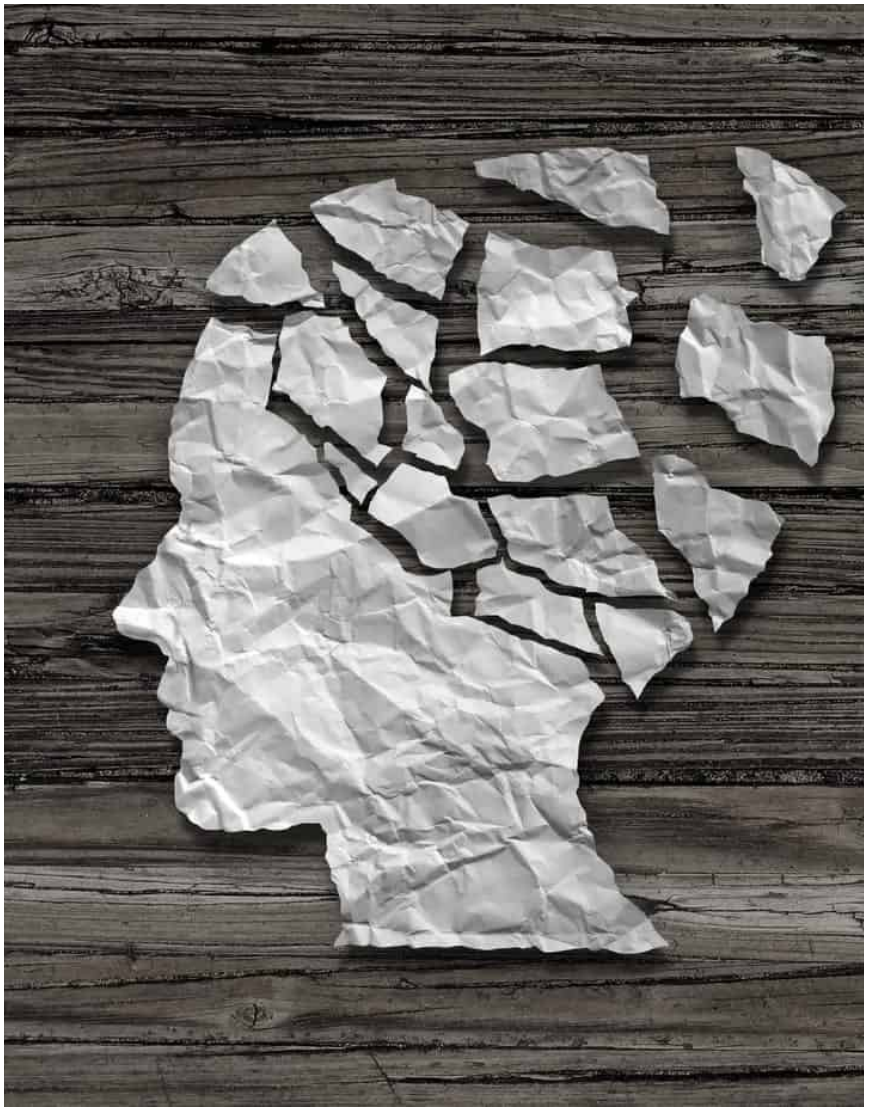
Prefrontal Cortex

The Brain

Trauma and the Brain



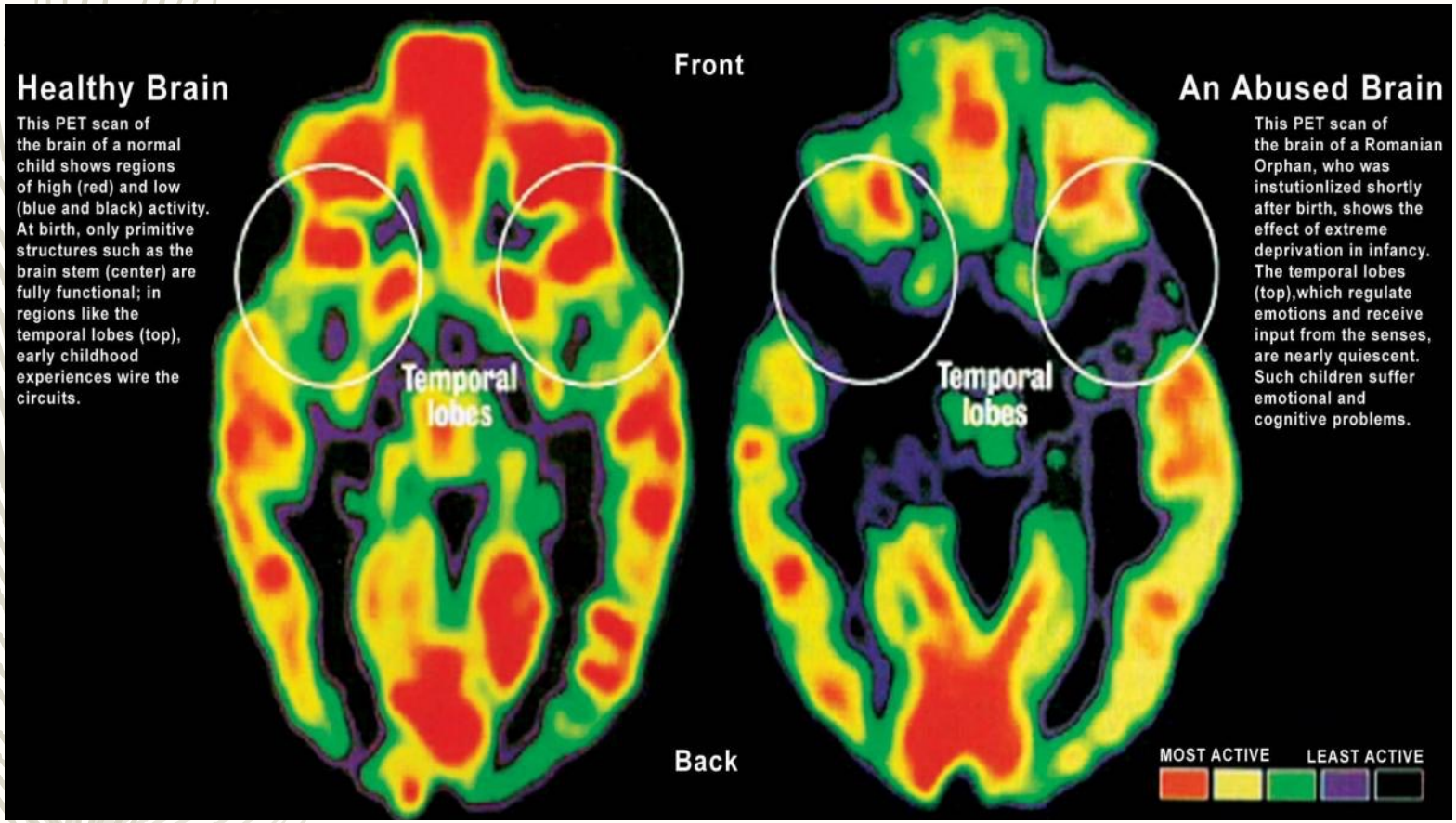


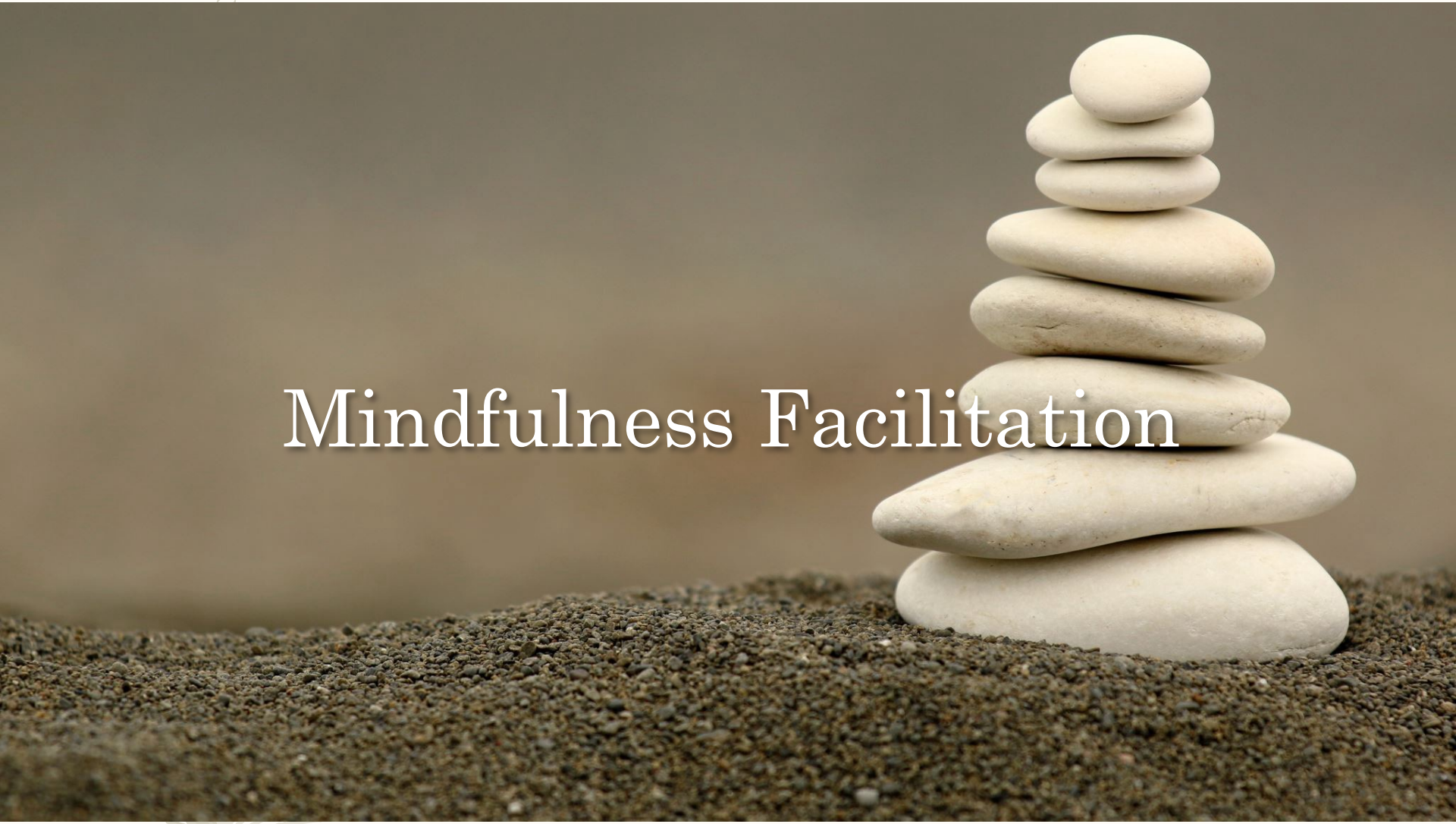


– **“Experience can change the mature brain – but experience during the critical periods of early childhood ORGANIZES brain systems.”**

– - Bruce Perry, Trauma &

– Brain Development


Healthy Brain
This PET scan of the brain of a normal child shows regions of high (red) and low (blue and black) activity. At birth, only primitive structures such as the brain stem (center) are fully functional; in regions like the temporal lobes (top), early childhood experiences wire the circuits.
Front
Temporal lobes
Temporal lobes
An Abused Brain
This PET scan of the brain of a Romanian Orphan, who was instutionlized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top),which regulate emotions and receive input from the senses, are nearly quiescent. Such children suffer emotional and cognitive problems.
Back
MOST ACTIVE
LEAST ACTIVE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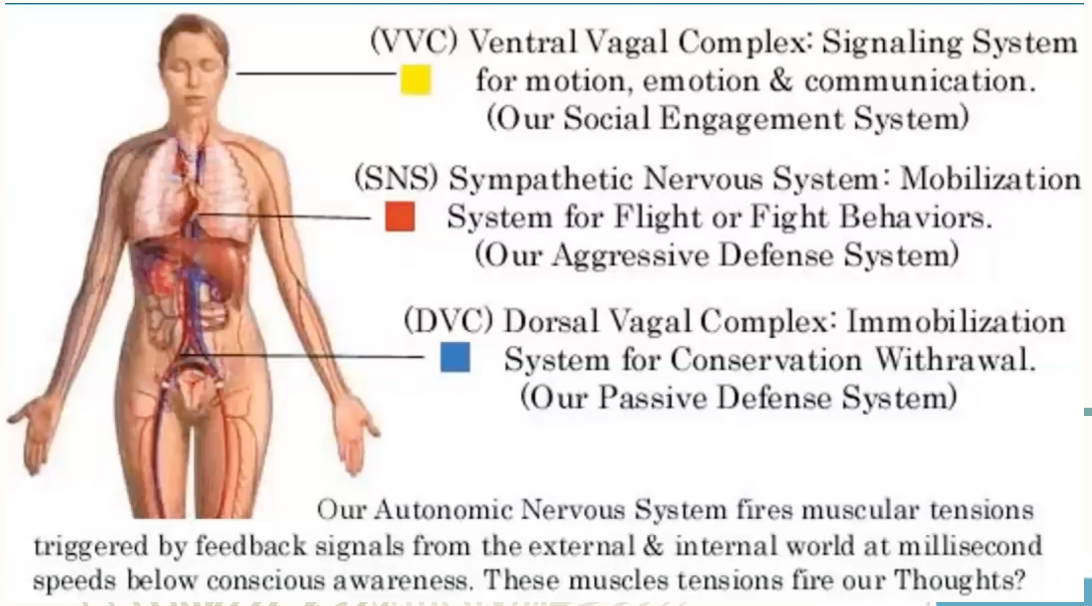
Our genetics prepare us to respond with fight or flight

During chronic and prolonged trauma, adrenaline and cortisol are released for nothing and become out of balance.

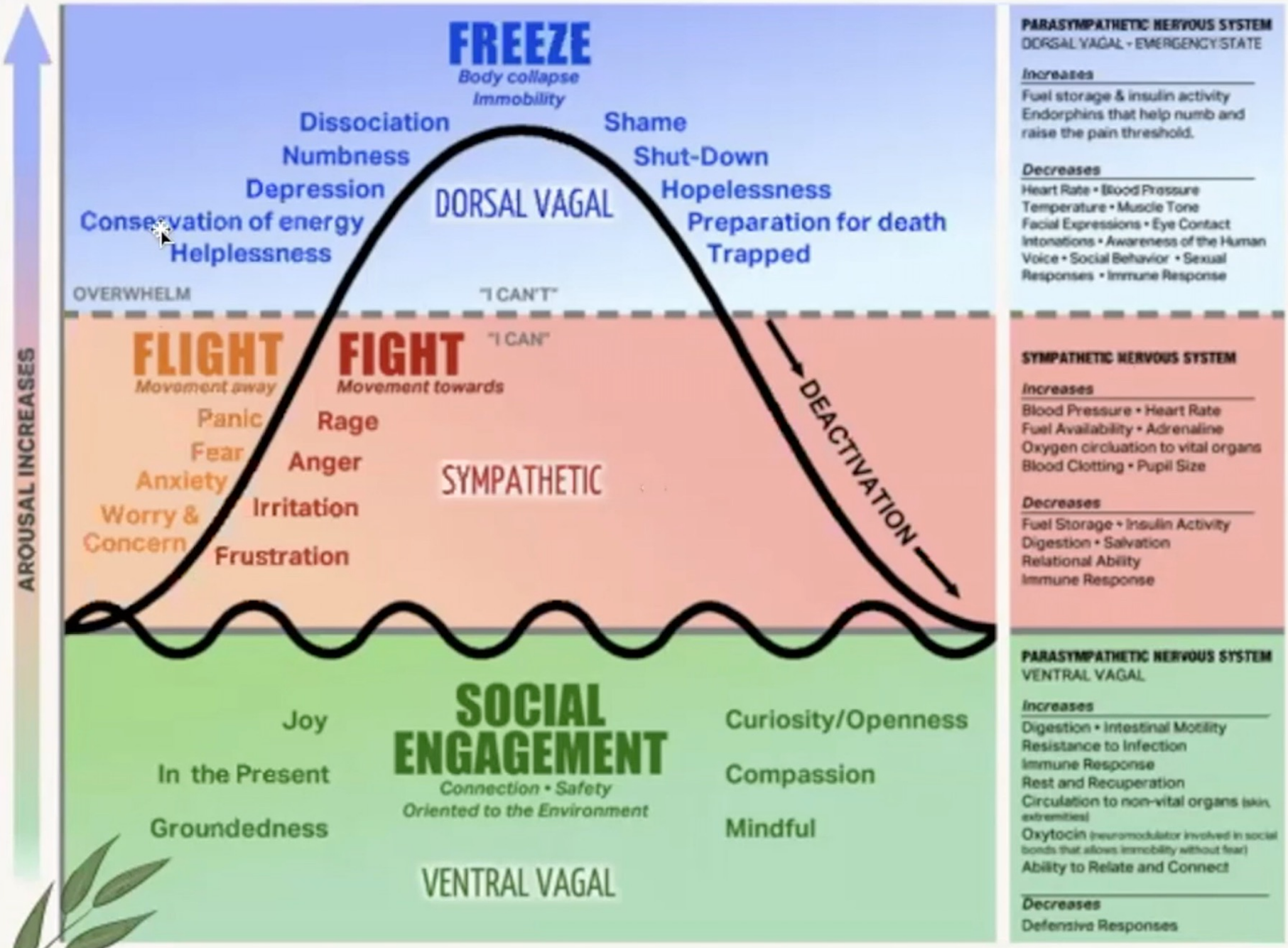
Too much cortisol weakens muscles and cause early aging

Too little cortisol after years of stress leaves a person jumpy, hyper-alert, and unable to relax.



Polyvagal Theory: Social engagement, Fight/flight, and Freeze

Image: Australian Children Foundation, 2011


FREEZE
Body collapse
Immobility
Dissociation
Numbness
Depression
Conservation of energy
Helplessness
DORSAL VAGAL
Shame
Shut-Down
Hopelessness
Preparation for death
Trapped
OVERWHELM
"I CAN'T"
"I CAN"
FLIGHT
Movement away
Panic
Fear
Anxiety
Worry & Concern
FIGHT
Movement towards
Rage
Anger
Irritation
Frustration
SYMPATHETIC
DEACTIVATION
AROUSAL INCREASES
SOCIAL ENGAGEMENT
Connection • Safety
Oriented to the Environment
Joy
In the Present
Groundedness
Curiosity/Openness
Compassion
Mindful
VENTRAL VAGAL
PARASYMPATHETIC NERVOUS SYSTEM
DORSAL VAGAL - EMERGENCY STATE
Increases
Fuel storage & insulin activity
Endorphins that help numb and raise the pain threshold.
Decreases
Heart Rate • Blood Pressure
Temperature • Muscle Tone
Facial Expressions • Eye Contact
Intonations • Awareness of the Human Voice • Social Behavior • Sexual Responses • Immune Response
SYMPATHETIC NERVOUS SYSTEM
Increases
Blood Pressure • Heart Rate
Fuel Availability • Adrenaline
Oxygen circluation to vital organs
Blood Clotting • Pupil Size
Decreases
Fuel Storage • Insulin Activity
Digestion • Salvation
Relational Ability
Immune Response
PARASYMPATHETIC NERVOUS SYSTEM
VENTRAL VAGAL
Increases
Digestion • Intestinal Motility
Resistance to Infection
Immune Response
Rest and Recuperation
Circulation to non-vital organs (skin, extremities)
Oxytocin (neuromodulator involved in social bonds that allows immobility without fear)
Ability to Relate and Connect
Decreases
Defensive Responses

Flight, fight, freeze, Faint,

- Biological reaction initiated by the brain stem
- Primitive, inborn response to perceived threat
- **When might this become counterproductive?**
- **How do you help someone who becomes activated**?

Hand Model of the Brain (Dan Siegel)

- Help to re-engage the neocortex

- **What part of the brain are you living in?**

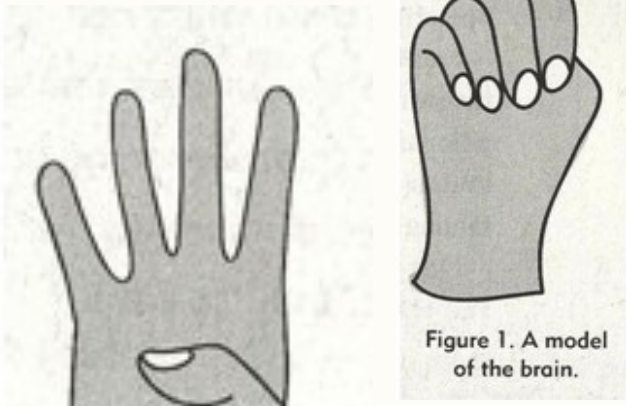


Figure 1. A model of the brain.

Dan Siegel - "Flipping Your Lid:" A Scientific Explanation

Figure 2. Flipping your lid.

Practice

- **How would you explain the neurobiology of trauma to an adult or child?**
- For example:

  - Fight, flight, freeze response, triggers,
  - Flipping your lid etc…

Trauma "Wears a Groove" in the Developing Brain

- Because brain is in a chronic state of fear-related activation, brain more easily triggered into the "fear" track
- Fear-related activation includes:
  - hypervigilance, increased muscle tone, focus on threat-related cues, anxiety, and behavioral impulsivity **(Perry, 2000)**

Video Clip Captain Phillips

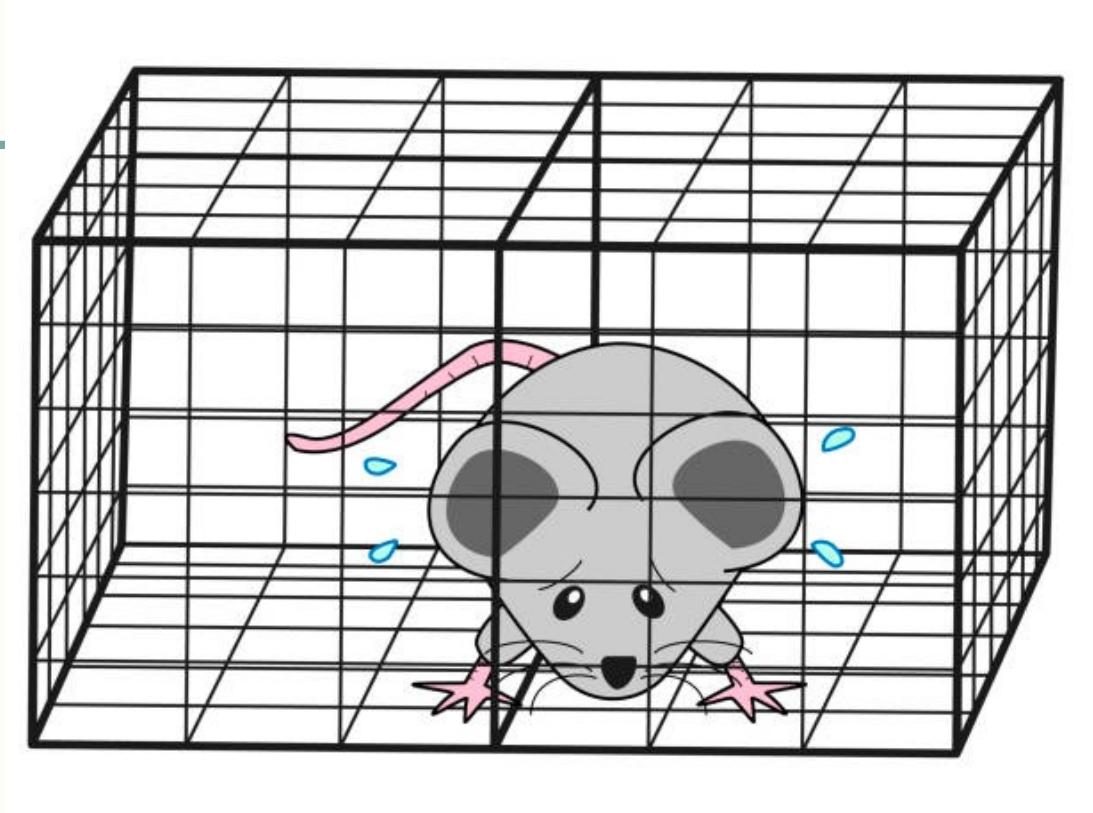
You are asked to provide consultation

- How do you explain what is going on here?
- What do the professionals do that works well or does not work well?
- What suggestions would you make based on what you know?

What does this mean for the built environment?

- Dr. Jaak Panksepp's Research Study

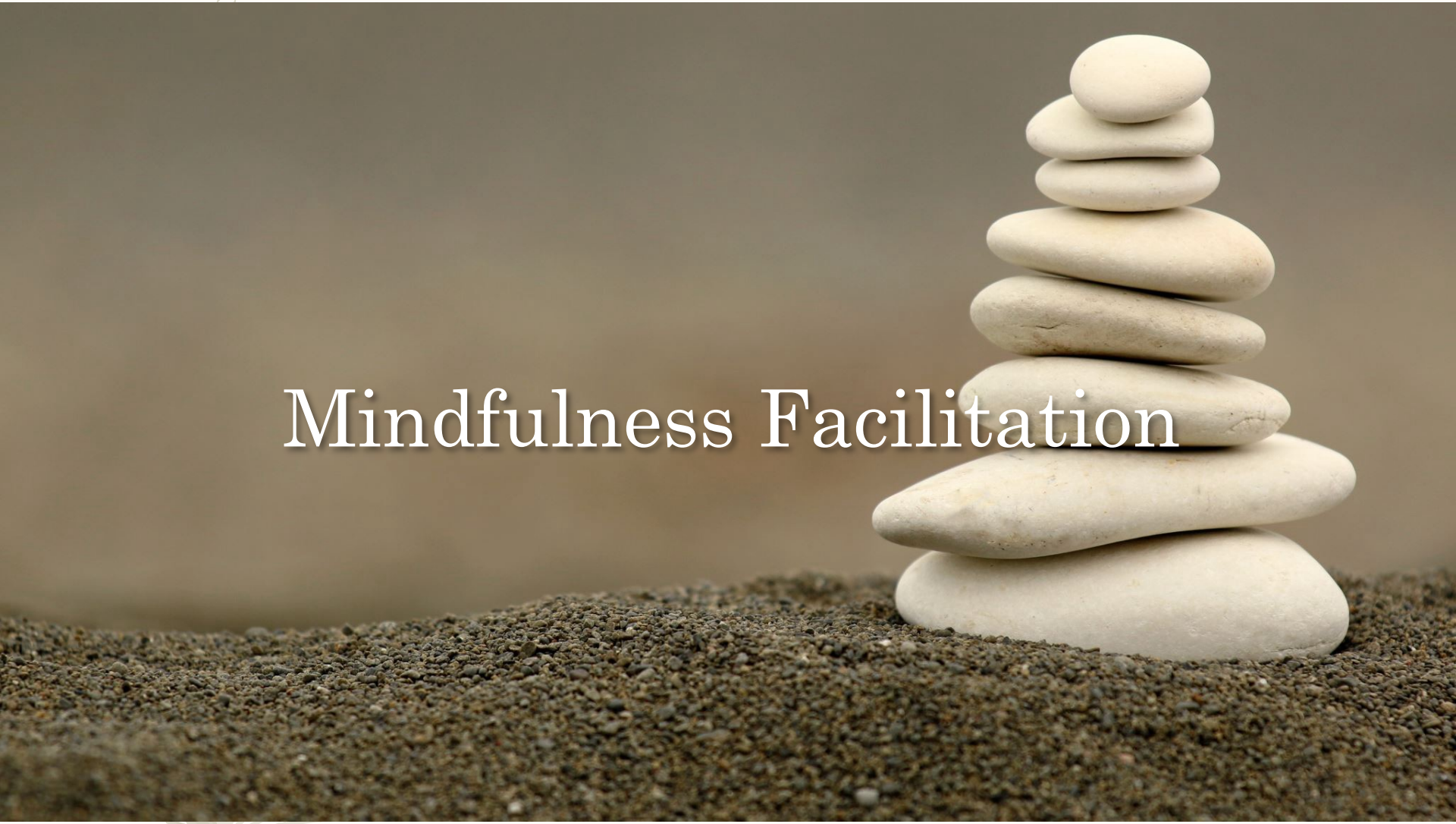
- *How do we design to minimize the cat hairs in our buildings? … Especially for the most vulnerable among us?*



Being Trauma Informed: TID in Supportive Housing An Example

- What does Macur identify in terms of trauma that related to what we have already discussed in our class?
- What systems does she name that could be improved by applying a trauma-informed lens. What could be added?

How Spaces Can Hurt or Heal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Questions?

Comments?