BLOCKED TRUST: WHEN YOUNG CHILDREN BLOCK THE PAIN OF REJECTION AND THE CAPACITY TO DELIGHT IN ORDER TO SURVIVE IN A WORLD WITHOUT COMFORT AND JOY

BLOCKED CARE: WHEN THE CHILD’S BLOCKED TRUST TRIGGERS THE SUPPRESSION OF CARING IN THE CARER

A BRAIN-BASED MODEL OF RELATIONAL TREATMENT: UNBLOCKING BLOCKED TRUST AND BLOCKED CARE TO HELP CHILDREN LEARN TO TRUST SAFE, TRUSTWORTHY CAREGIVERS
EARLY EXPERIENCE AND BRAIN DEVELOPMENT

Safe environment:
- The world is safe and full of wonders.
- I have great expectations.
- Social engagement: Slow and Curious.
- Amygdala:
  - Fast and curious
  - Self-defense: Fast and furious.

Unsafe environment:
- The world is dangerous.
- People can't be trusted.
- I am bad.
- Treatment:
  - Amygdala:
    - Slow and curious
    - Self-defense: Fast and furious.
SOCIALLY ENGAGED BRAIN SYSTEM VERSUS DEFENSIVE BRAIN SYSTEM

BRAIN NETWORKS AND FUNCTIONAL CONNECTIVITY

CINGULATE

DORSAL PFC
MEDIAL PFC
VENTRAL PFC

A = amygdala
H = hippocampus

MID-BRAIN ALARM SYSTEM

RAPID SELF DEFENSE SYSTEM: FIGHT, FLIGHT, FREEZE

DEVELOPMENTAL TRAUMA, INESCAPABLE EARLY LIFE STRESS
In syn, Out of syn, Getting In Syn

Social Engagement

Chronic Dysphoria/Negativity/Depression

Social Buffering

Self Defense
Adolphs et al. (1998) showed that patients with bilateral amygdala damage were impaired in discriminating untrustworthy from trustworthy-looking faces.

Evaluating face trustworthiness: a model based approach

Alexander Todorov, Sean G. Baron, and Nikolaas N. Oosterhof
Amygdala neurons responding to negative and positive experiences

OPTOGENETIC RESEARCH WITH LIVE, MOVING ANIMALS
READING ANOTHER PERSON’S INTENTIONS: FIRST IMPRESSIONS VS “CONTEXTUALIZED” UNDERSTANDING

EARLY LIFE ADVERSITY

A = AMYGDALA
H = HIPPOCAMPUS

Neuroception: 50-100 milliseconds

FUSIFORM GYRUS: FACE RECOGNITION 170-200 MSEC

Context: Time/Place

Reading Intentions: 200-250 MSEC+

TPJ = temporo/parietal junction

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Collicular pathway vs cortical pathway

Slow, Cortical, Conscious Processing: “Top Down”
Can inhibit the “Bottom Up”
Circuit and Support more “Thoughtful” Decision Making
INTERSTATE TRAVEL OR THE “ELEVATOR” MODEL OF THE BRAIN: ALL ME

(Adapted from Stephen Porges, The Polyvagal Theory of the Nervous System)

SAFE ENOUGH TO NOT PLAY DEFENSE: SOCIAL STATE OF MIND

PLAYFUL, JOYFUL, CURIOUS LOVING ME

OPEN/ENGAGED

ACTIVE SELF DEFENSE: BEAT ‘EM UP OR RUN

FIGHTIN’/ FLEEIN’ ME

FIGHT/FLIGHT

PASSIVE SELF DEFENSE: NO ESCAPE, SO PLAY DEAD, DISSOCIATE

FROZEN ME FREEZE-IN-FRIGHT

INTERSTATE TRAVEL OR THE “ELEVATOR” MODEL OF THE BRAIN: ALL ME

(Adapted from Stephen Porges, The Polyvagal Theory of the Nervous System)
STATE-DEPENDENT FUNCTIONING AND INTERSTATE TRAVEL

**EMOTION**

**BEHAVIOR**

**COGNITION**

**INTERSTATE TRAVEL: COREGULATION OF STATES**

**SOCIAL ENGAGEMENT:**
SAFE, OPEN STATE

**FIGHT/FLIGHT:**
ACTIVE DEFENSIVE STATE

**FREEZE STATE:**
IMMOBILIZED IN FEAR
What Makes Attachment So Important?

- Facilitates Development Skills:
  - 1. Satisfying Reciprocal Relationships
  - 2. Regulation of Emotions
  - 3. Reflective Functioning
  - 4. Relationship Repair
INTERSUBJECTIVITY

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An Open & Engaged Stance
Toward the Experience of
Each Other

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Synchronized Intentional Movements
involving
States of Affect,
Attention, and Motivation
Synchronised Nonverbal (Bodily) Communications Lead to regulation & Integration

- Matched Affect:
  Intensity, Rhythm, Beat
  Contour, Duration, Shape

- Joint Attention:
  Light to Fully Engaged Focus

- Clear Intention:
  From Sense of Gentle, Compassionate, Enquiry to Sense of Urgency to Understand & be Helpful
PACE

- Playfulness: A light, hopeful, open and spontaneous
- Acceptance: Unconditionally directed at all of the experience of the other
- Curiosity: Nonjudgmental, not-knowing, active interest in the other’s experience
- Empathy: Felt sense of the other; actively experienced and communicated.
WHERE SAFETY MESSAGES FIRST ENTER THE BRAIN: NONVERBAL BEFORE VERBAL

**NON VERBAL SAFETY MESSAGES: FACE, VOICE, TOUCH**

0-200 msec
- **neuroception**

250-300 msec
- **perception**

500 msec-1 second
- **awareness**

Seconds to years
- **Reflection**

**SOCIAL BUFFERING**

**AWAKENING OF THE PFC**

**REVISING BELIEFS ABOUT SELF, OTHERS, RELATIONSHIPS**
Decision-making in safe and unsafe environments: the “SPEED VS ACCURACY TRADEOFF (SAT)”

**SAFE**

Grandpa pretending to be angry: 4-500 milliseconds

Evidence accumulation: Slower, more accurate: “Minded action”

**UNSAFE**

Mean eyes: Danger

Ultra fast “Mindless” defensive action: 120 milliseconds
Amygdala-dACC network: Shifting from Automatic Bottom Up to Intentional Top Down “Decision Making”

Functional Connectivity between Amygdala and Cingulate Cortex for Adaptive Aversive Learning

Author links open overlay panel

OdedKlavir¹ Rote mGenud-Gabai¹ RonyPaz¹

HOLD IT: PAUSE AND TAKE TIME FOR A SECOND LOOK

Intentional Self-guided State Regulation

Coregulation, Social Buffering

Sympathetic Defense: active

More “Thoughtful”, Action

Dorsal Vagal Defense: passive
BLOCKED SOCIAL PAIN: SURVIVING THE LACK OF GOOD CONNECTIONS BY SUPPRESSING THE PAIN OF DISCONNECTION

When SHE can’t show it, you have to know it. She needs you but SHE’S AFRAID TO FEEL SAD! SO HELP HER FEEL SAFE ENOUGH TO BE SAD AND SEEK COMFORT
THE SELF SYSTEM AND DEVELOPMENTAL TRAUMA

THE DEFAULT MODE NETWORK OR DMN:
WHERE WE GO IN OUR BRAINS WHEN WE ARE SAFE ENOUGH TO BE WITH OUR SELVES,
REMEMBERING, REFLECTING, AND CHANGING OUR SELF-RELEVANT BELIEFS AND NARRATIVES

(A) Autobiographical memory
(B) Envisioning the future
(C) Theory of mind
(D) Moral decision making

MPFC: MIDDLE PREFRONTAL

PCC: POSTERIOR CINGULATE CORTEX

Mid brain defense system:

DEVELOPMENTAL TRAUMA: EARLY EXPOSURE TO VERY POOR CARE
PACE THIS!: TARGETING THE EPICENTER OF BLOCKED TRUST

THE AMYGDALA

DEVELOPMENTAL TRAUMA

PACE: AMYGDALA WHISPERING

SOCIAL BUFFERING USING AMYGDALA WHISPERING: EYES, VOICE, TOUCH
Figure 2.2 The Five Parenting Systems

THE PARENTING BRAIN

- Parental Meaning-Making System
- Parental Child Reading System
- Parental Reward System
- Parental Approach System
- Parental Executive System

MINDFUL PARENTING

SELF-DEFENSE SYSTEM

amygdala

“on”

“off”

“safe”

(THE PARENTING BRAIN diagram with key components labeled and relationships indicated)
“PACING” THE CHILD’S INTERSTATE TRAVEL FROM CLOSED STATE TO OPEN STATE: SURPRISING THE MISTRUSTING BRAIN, REAWAKENING THE ATTACHMENT SYSTEM, RE-WRITING THE STORY OF SELF

PPE = Positive Prediction Error (DOPAMINE)

Safe Sadness: New Story of Brave Girl

PACE PROMOTING “INTERSTATE”, AFFECTIVE TRAVEL: FROM ANGER TO SURPRISE TO CURIOSITY TO SADNESS

REAWAKENING THE BLOCKED POTENTIAL FOR THE KID TO SAFELY FEEL SAD AND RECOVER THE ABILITY TO SEEK COMFORT
SAFE SADNESS

WOW! MAYBE I AM A BRAVE, LOVABLE GIRL, TOO

REAWAKENING THE CHILD’S BLOCKED POTENTIAL TO FEEL THE SEPARATION PAIN THAT TRIGGERS COMFORT-SEEKING, GIVING THE CAREGIVER AN OPPORTUNITY TO PROVIDE COMFORT

DMN: SELF SYSTEM STORY PLACE

INTERSTATE TRAVEL ENABLED BY PACE

SOCIAL BUFFERING

PAG

SAD STORY ABOUT BRAVE GIRL
what to say when child says:

- You Hate Me!
- I’m Stupid!
- What do you care?
- You think I’m crap!
- It’s none of your business!
- You’re blaming me!
- You don’t believe me!
- Don’t talk about it!
- Nobody at school likes me.
- I’m fine! I don’t need any help!
- Why bother? Nothing’s going to change.
FROM AN EVENT TO A STORY
Empathy for experience
Describe the Event
Curious about what was so Hard
Curious about being Hard (2)
--Guess about intention & meaning
--Develop Story about
intent-meaning-event
Empathy for Story
Place of Story in Bigger Picture
After Nourishment, Shelter and Companionship, Stories are the thing We need most in the World.

---Phillip Pullman