

Caught on the Horns of Dilemma...



*Attachment Trauma in Early Development
→ Complex Trauma as adults*

Mike Bricker MS, CADIC-II, LPC ~ LCS Drug Court Treatment Program



Lewis & Clark College
Northwest Institute of
Addictions Studies



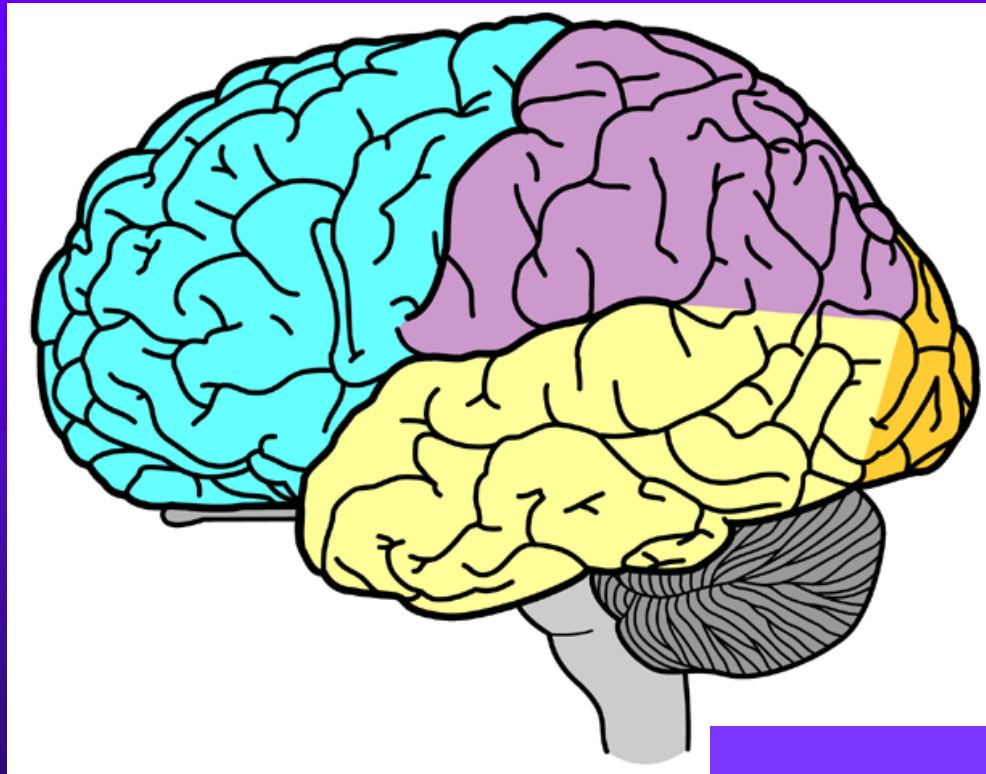
ATTACHMENT THEORY PERSPECTIVE

It's all about love

- Every human being adapts to some degree in an effort to sustain emotional attachment. This human experience does not need a label.
- Human beings are hard wired to attach for our physical and emotional survival
- As children we will do whatever we must to keep a connection whether it is good for us or not. In infancy and early childhood our lives depend on attachment.
- Secure attachment and comforting in childhood creates the ability to self-soothe later in life. (Mikulincer and Shaver, 2004)
- Adult attachment is equally important. The lack of loving contact creates distress and the need for adaptive measures to compensate for the absence of connection. This is true for both adults and children.



**“Mary, Mary quite contrary...
how do your neurons grow?”**

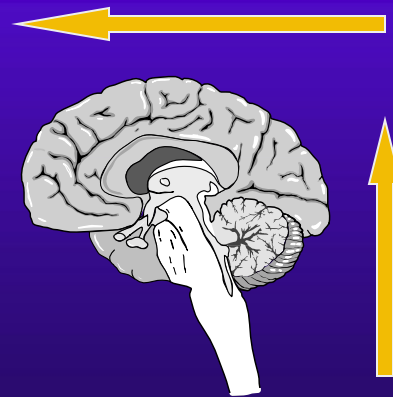
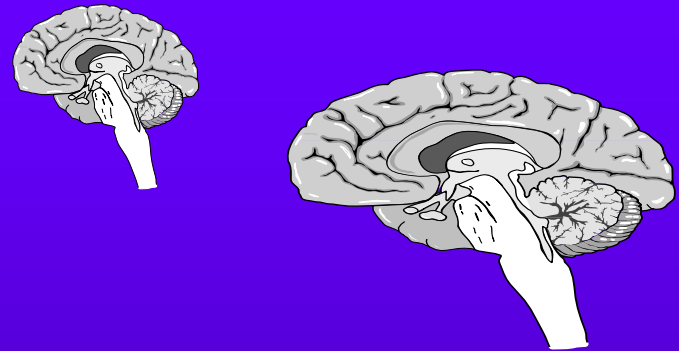


Brain Architecture is Built Over Time

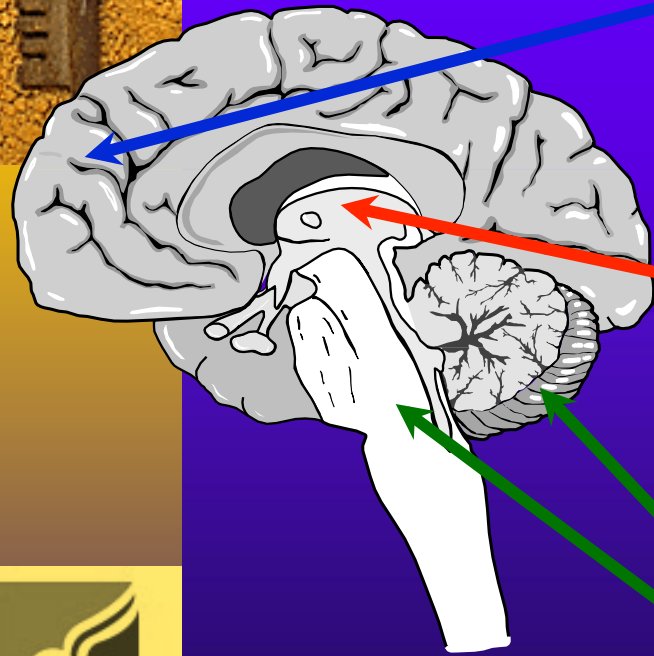
- ❖ Brain development progresses in a hierarchical, “bottom-up” sequence, with advanced skills built on more basic capabilities.
- ❖ As it develops, the quality of brain architecture establishes a sturdy or weak foundation for learning and behavior. **“What fires together, wires together”**
- ❖ Brain circuits consolidate with increasing age, making them more difficult to rewire.
- ❖ The timetable of brain plasticity varies: it is narrow for basic sensory abilities, wider for language, and broadest for cognitive and social-emotional skills.

Sequential Neuronal Development

- ◆ At birth the brain is 25% of adult size & reaches 90% of adult size by age 5.
- ◆ The brain develops from the bottom up and from the back to the front.
- ◆ Impact of the environment on the structure and function of the brain is greatest during the first 3 years of life.



Hierarchy of Brain Development



FOREBRAIN

Cortex
“Executive Center”

Abstract Thought
Logic
Reasoning

MIDBRAIN

Limbic
“Emotional Center”

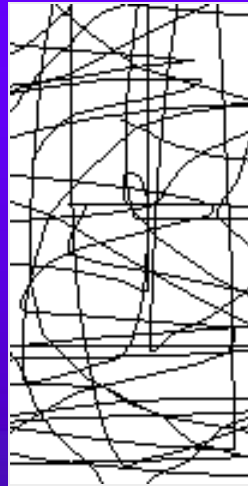
Attachment
Context Memory
Sexual Behavior
Emotion Reactivity
Appetite/Satiety

HINDBRAIN

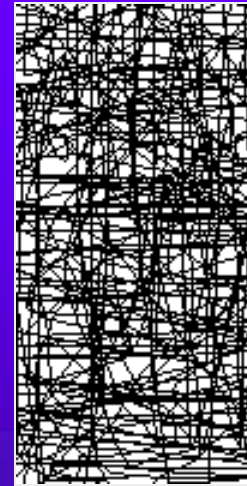
**Cerebellum &
Brainstem**
“Alarm Center”

Blood Pressure
Body Temperature
Motor Regulation
Balance
Heart Rate
Breathing

Neuronal “Pruning”



Newborn



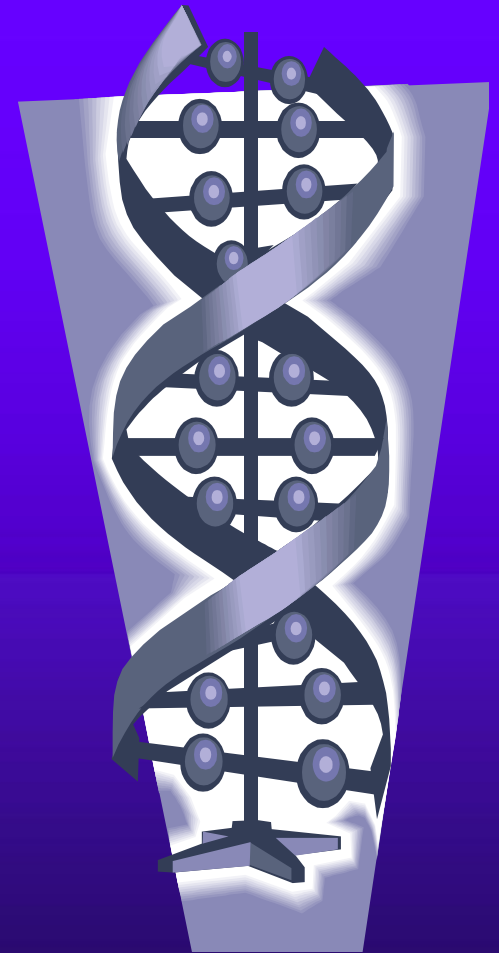
**Early
Childhood**



**Later
Childhood**

Gene / Environment Interaction

- ◆ **Environments can influence genes as they are “expressed”. Their intensity can either reduce or increase genetically based risks.**



Nature/Nurture Blend

Language Example

**Biological
Ability to:**

**Recognize
speech**

**Discern
sounds**

**Link meaning
to words**



**The
Environment
Shapes:**

**Particular
languages
learned**

Vocabulary

Dialect



Attachment is affected by Trauma

CAPACITY FOR RELATIONSHIPS

Intimacy ← ----- → Isolation

IDENTITY

Secure sense of self ← -- → Identity confusion

SELF-EFFICACY

Mastery ← ----- → Powerlessness

SELF-REGULATION

Self-control ← ----- → Impulsivity



Teresa Stroup, LCSW



Where does it go wrong?

- ◆ As biological beings, we are “hard-wired” at birth for survival, pleasure and comfort (homeostasis)
- ◆ Brainstem & limbic functions
- ◆ “What fires together wires together”
- ◆ Trauma creates highly reinforced neural pathways in unconscious and pre-conscious brain systems
- ◆ “rubber-banding” to earlier survival mode (*no sense of linear time*)





Where does it go wrong?

- ◆ Trauma results in “splintered” memory formation: stress → fragmented memory storage w/o markers for conscious recall → flashbacks
- ◆ Mis-attribution of self → Victim stance: “What’s WRONG with me?” vs “What’s *happening* to me?”

AREAS OF NEUROGENESIS

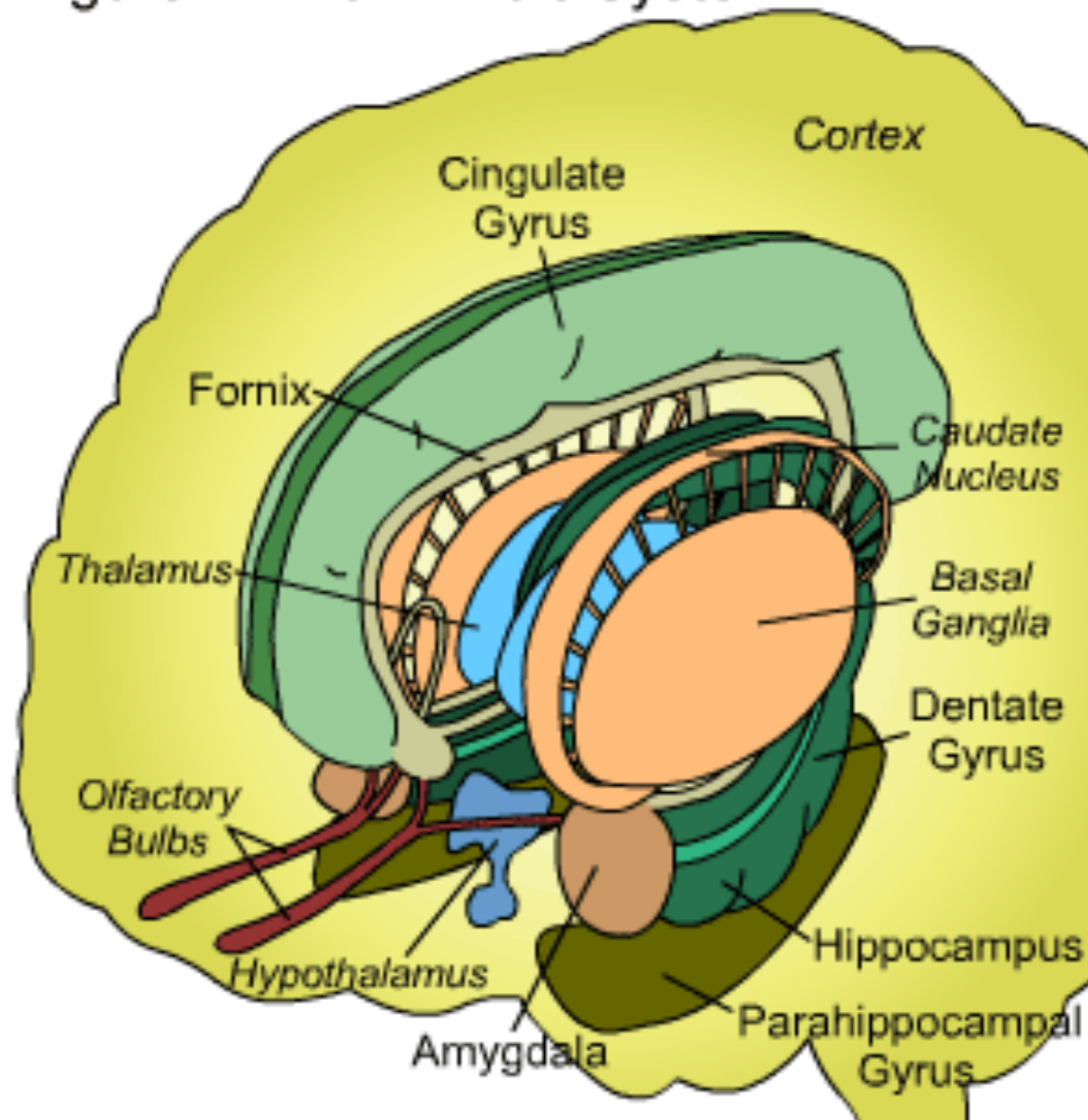
Caudate
nucleus

Hippocampus

Olfactory
bulb



Figure AB-16: Limbic System

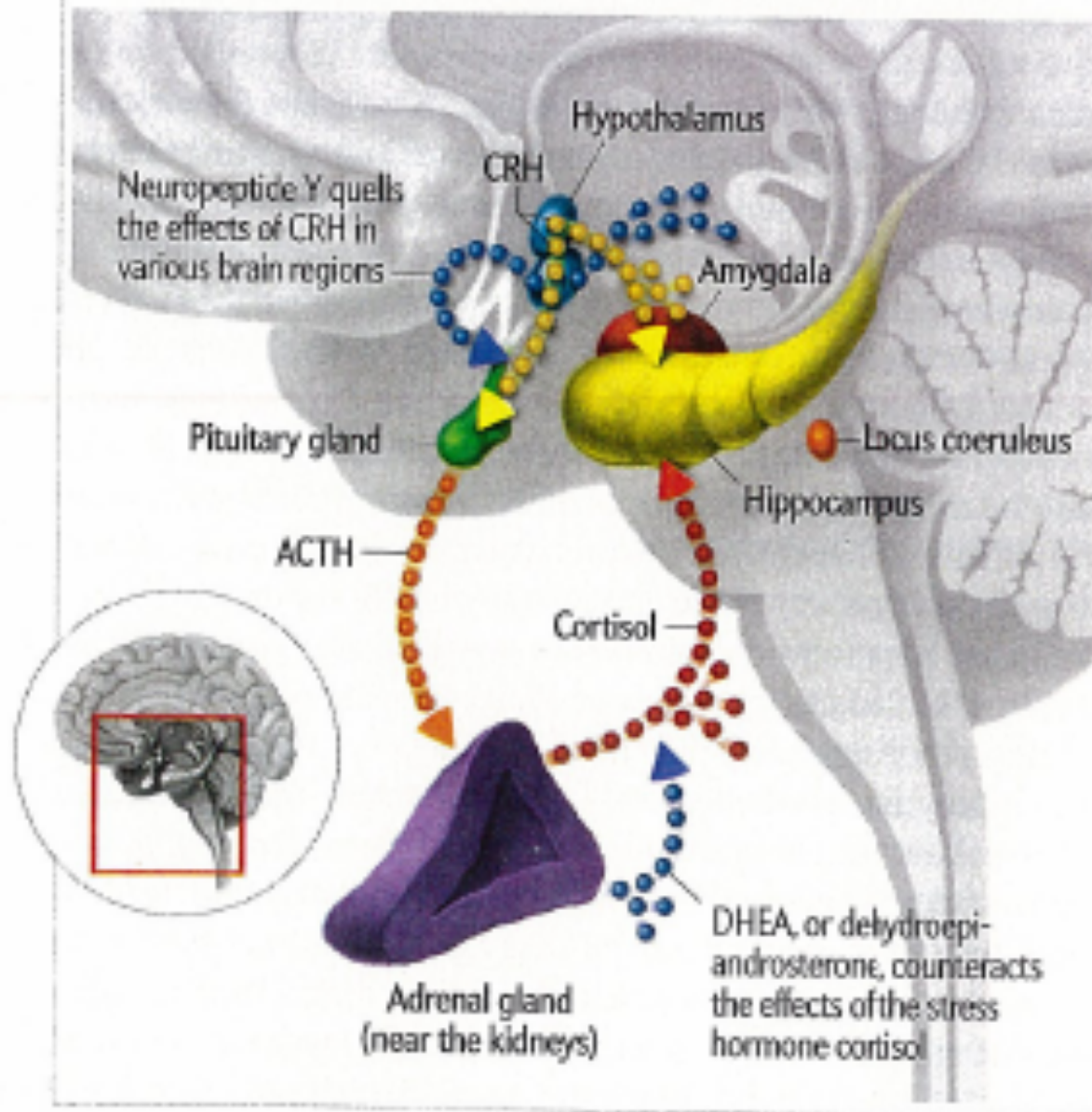


Stanford University.

www.stanford.edu/group/hopes-basics-brain/tut-f_ab



NWIAS



HPA – hypothalamic/pituitary/adrenal axis

Illustration by Jee Christensen

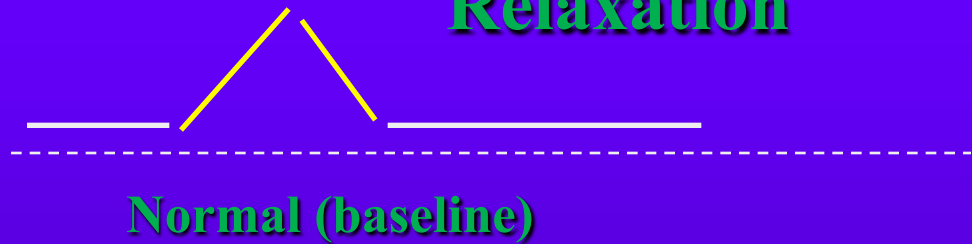


Tolerable vs Toxic Stress



Alarm

Relaxation



Alarm, Alarm, Alarm!

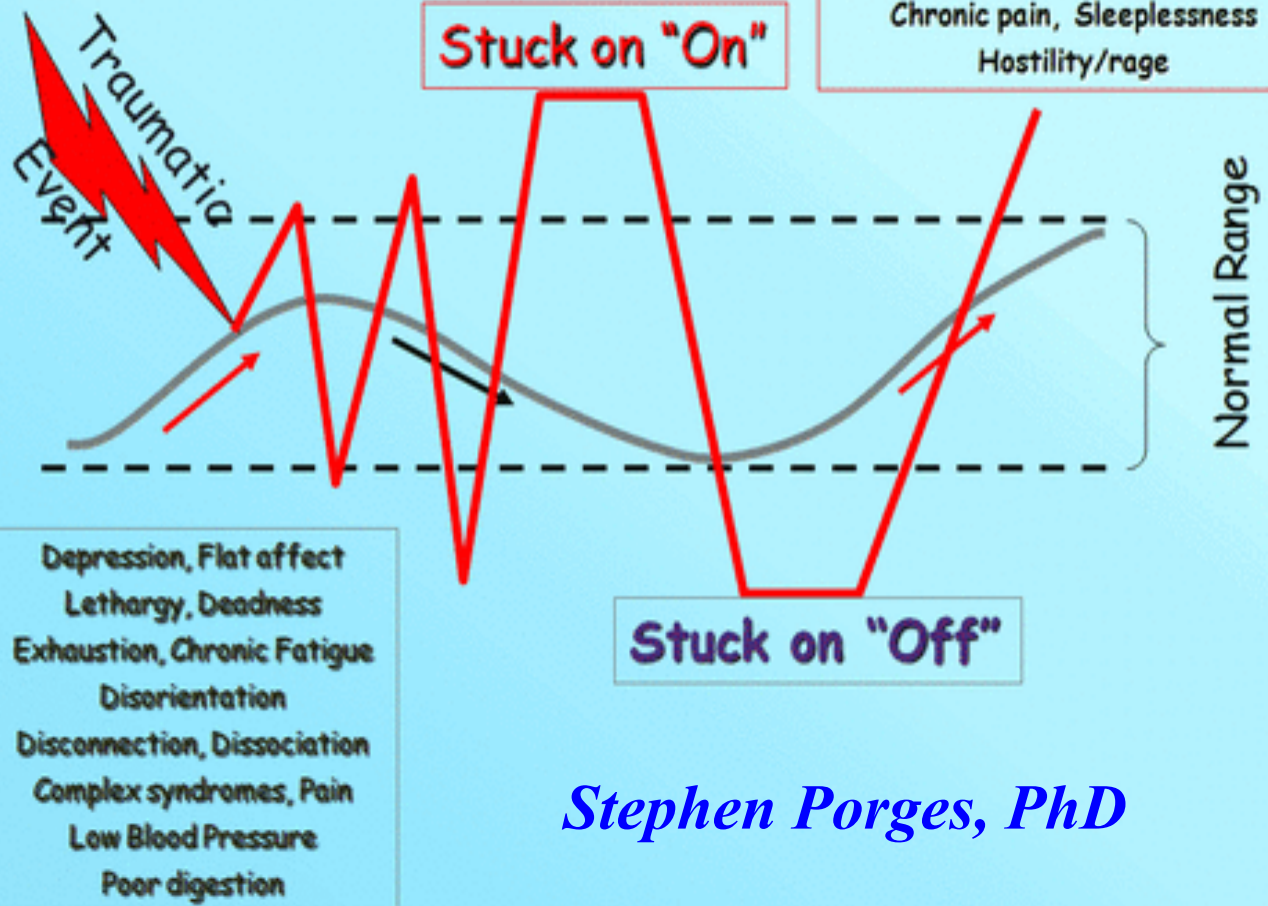


**“New
Normal” (high
baseline)**





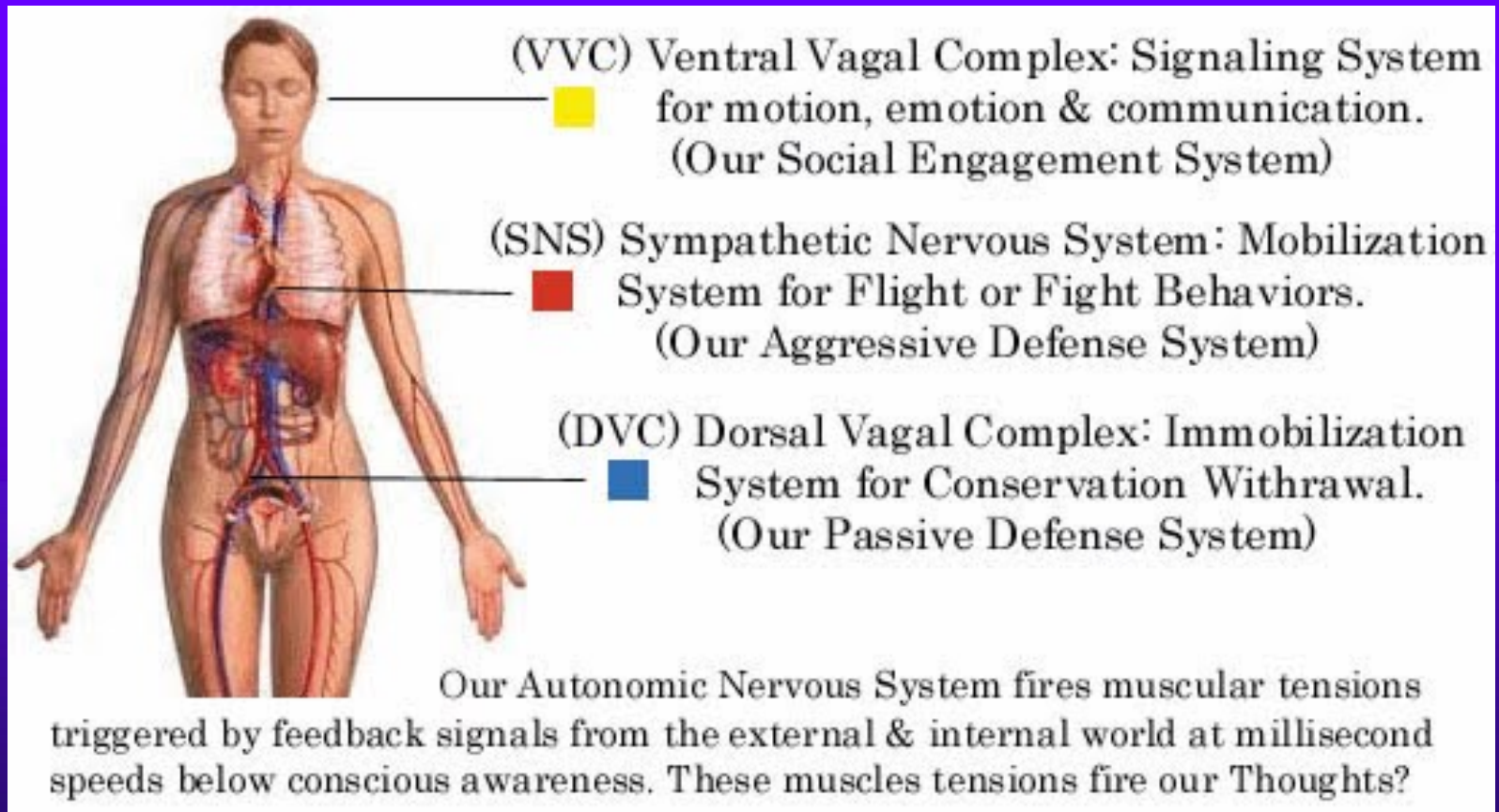
Symptoms of Un-Discharged Traumatic Stress



Stephen Porges, PhD

“Polyvagal Trauma Response”

Stephen Porges, PhD

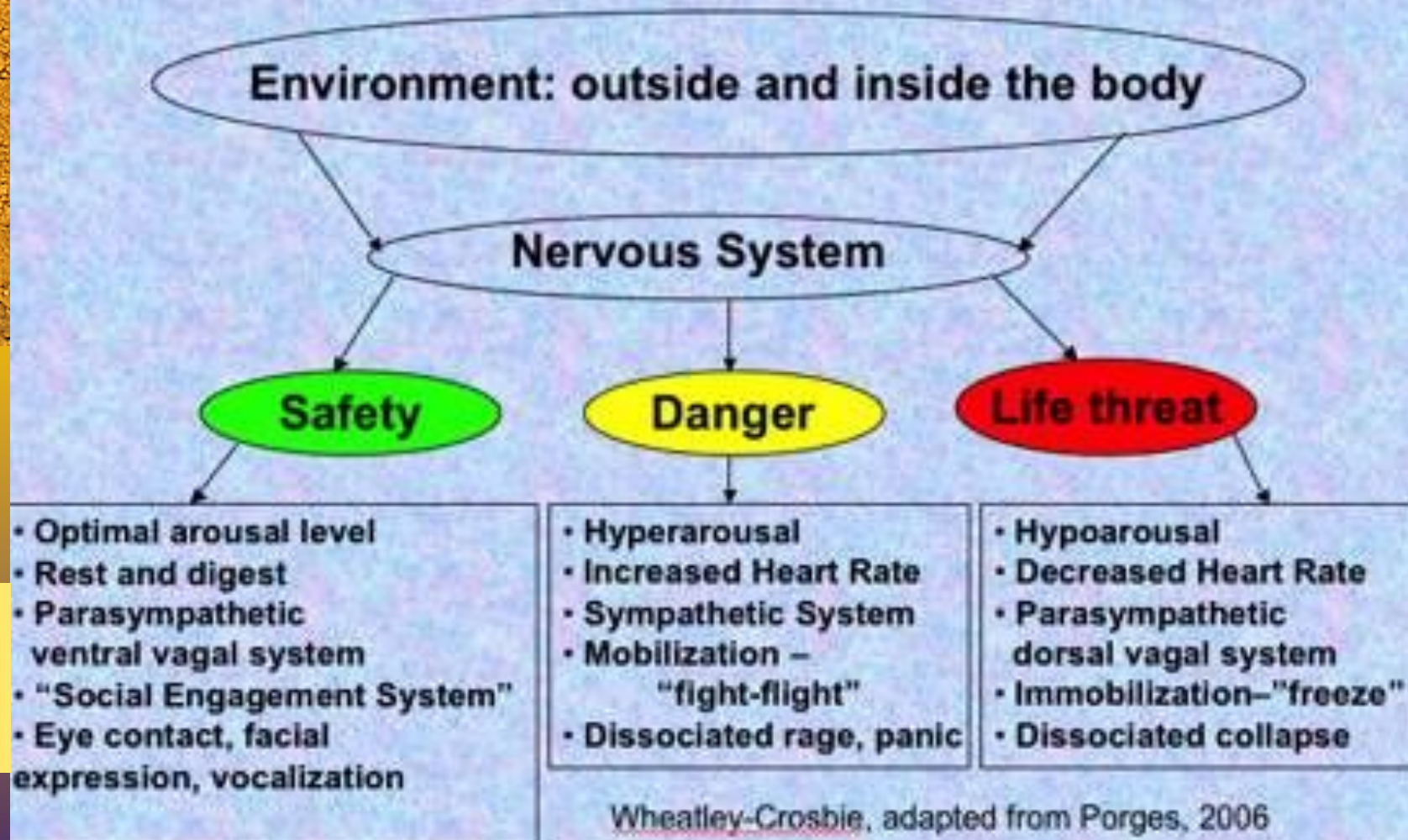


This is a feedback loop that works in both directions!



Porges' View of the ANS

The metaphor of safety





**“Thinking
Brain”**

Cortex

**Conscious
Mind**

**“Emotional
Brain”**

**Limbic
System**

**Subconscious
Motivation**

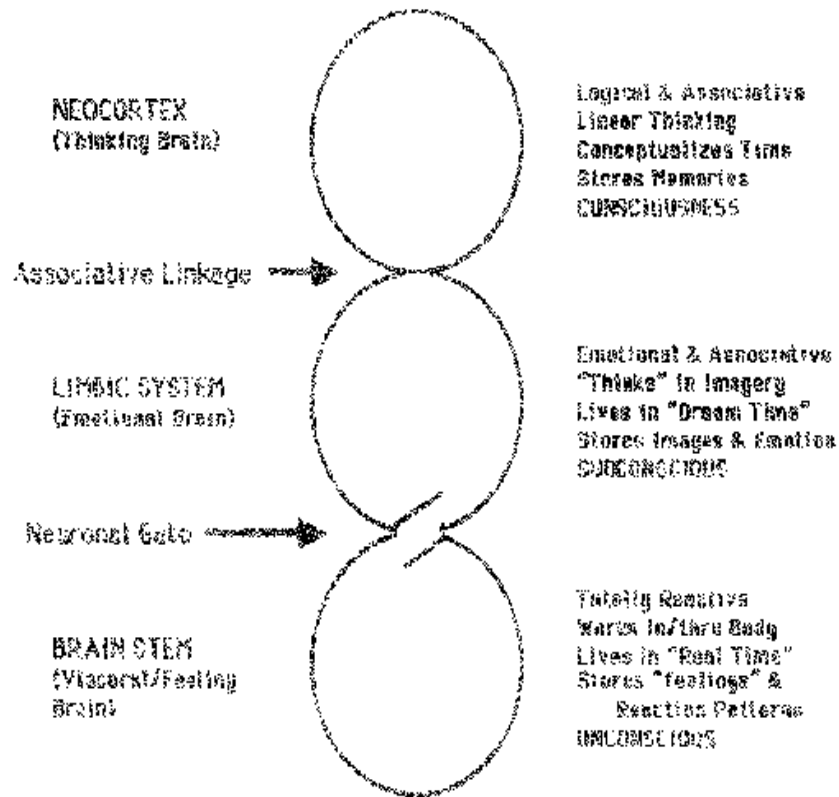
**“Breathing
Brain”**

**Brain
Stem**

**Unconscious
vital Functions**

The Trifune Brain

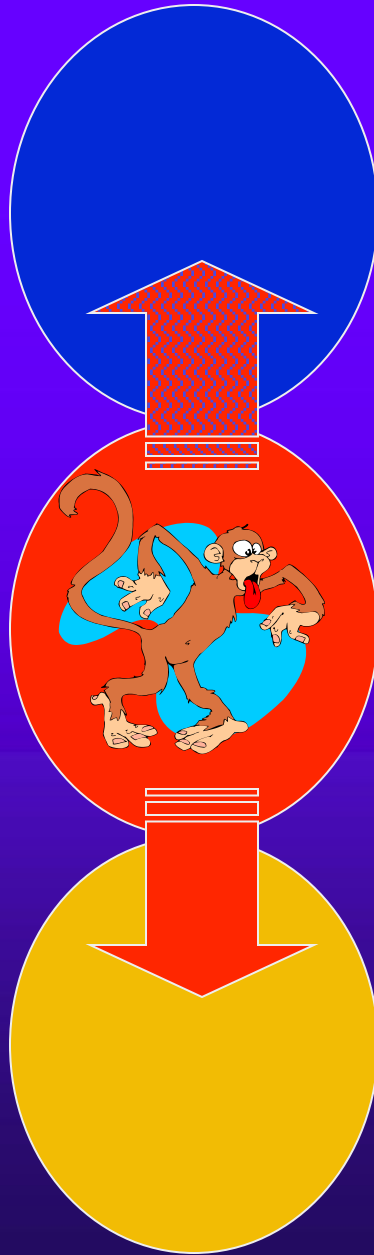
after Dr. Paul Pichon



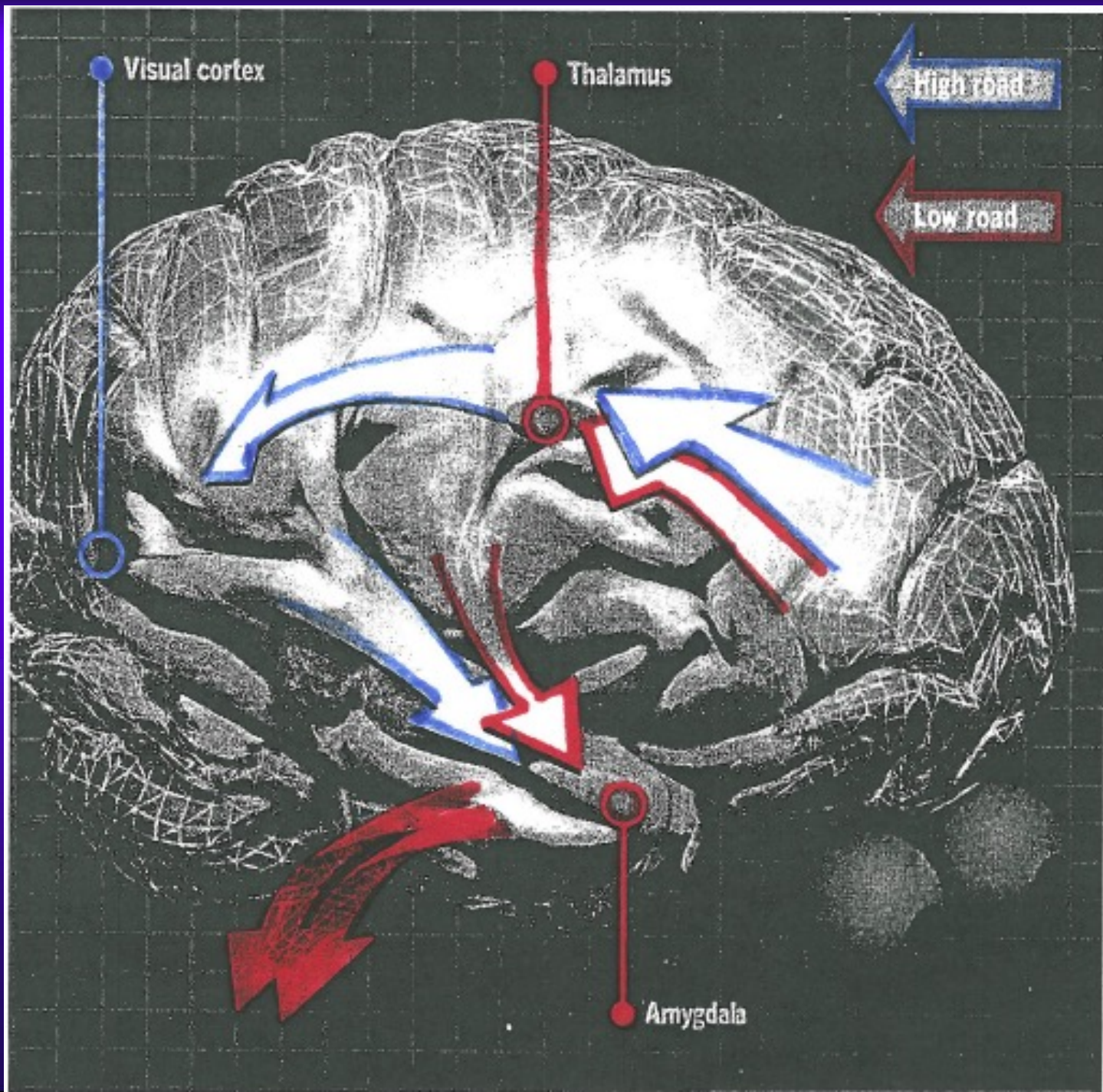
William S. Bricker MD, MACE
Charter Hospital of Milwaukee
© 1992

There are millions of neuronal connections from the Cerebral Cortex to the Limbic System, but they're all fairly small. The connection from the Limbic System to the Brain Stem is a huge pipe. So the "smart brain" communicates with the "survival brain" like a gentle rain shower... the "survival brain" hits the "lizard brain" like a fire hose!

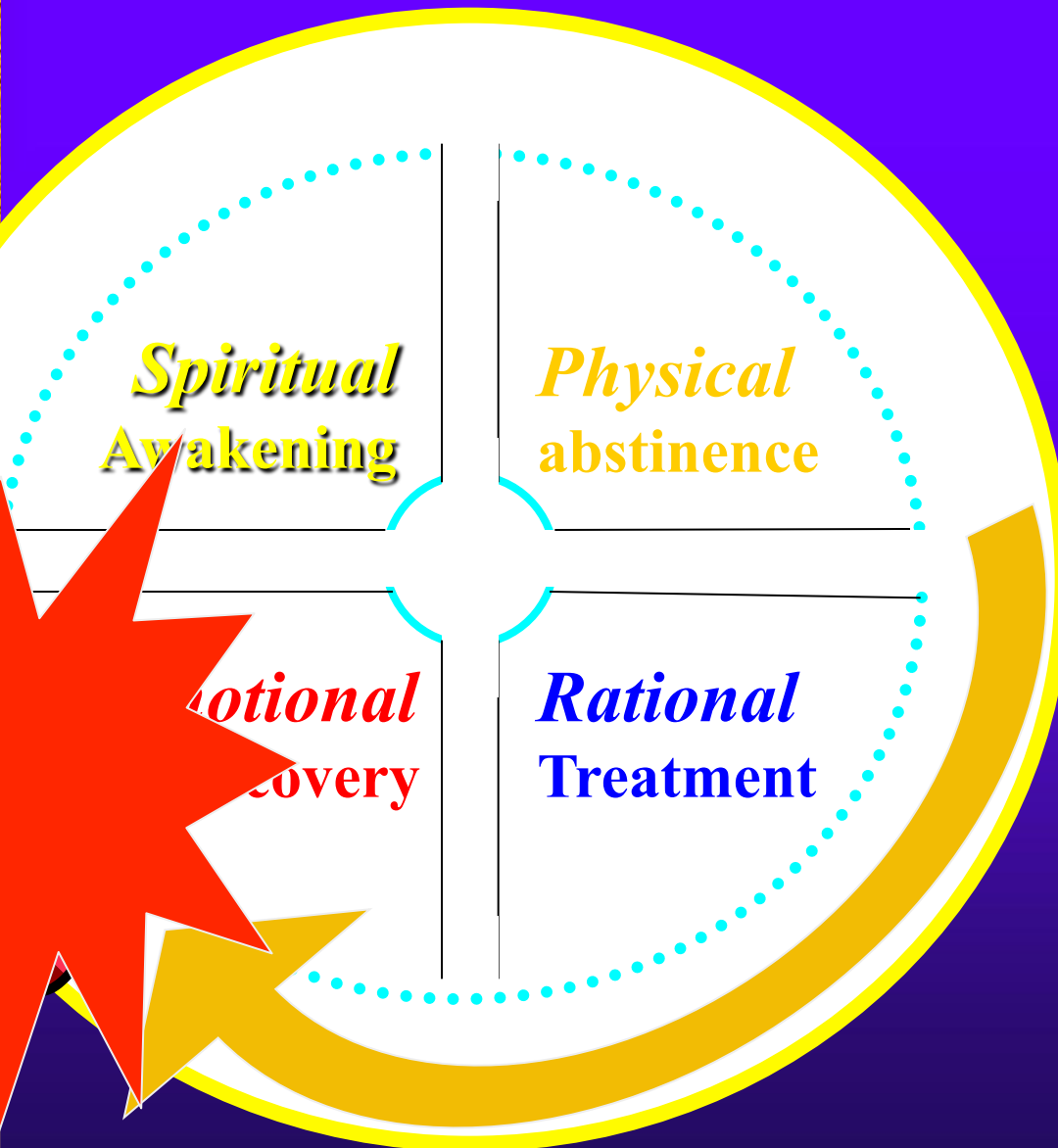
When the
“survival
Brain”
starts to
freak and
bleed up
into the
cortex, we
tend to call
it “irrational
thinking”



When the
“survival
Brain” starts
to freak and
dumps into
the brain
stem, we call
it the “Acute
Stress
Response”



TriUne Brain and Recovery (2a)



With many Trauma Survivors, the recovery process gets “stuck” here when the “survival brain” gets triggered.

Mnemonic for PTSD



DREAMS

- D** Detachment (generally numb emotional responsiveness)
- R** Reexperiencing the event (nightmares or flashbacks)
- E** Emotional effects (emotional distress, helplessness, fear)
- A** Avoidance (avoiding things that are reminders of the event)
- M** Months of duration (1- 3 = acute // > 3 = chronic)
- S** Sympathetic hyperactivity and hypervigilance (insomnia, irritability, difficulty concentrating)

Acronym adapted from Lange J, Lange C, Cabaltica R: Primary care treatment of post traumatic stress disorder. *Am Fam Physician* 2000; 1035-1040.

ATTACHMENT:

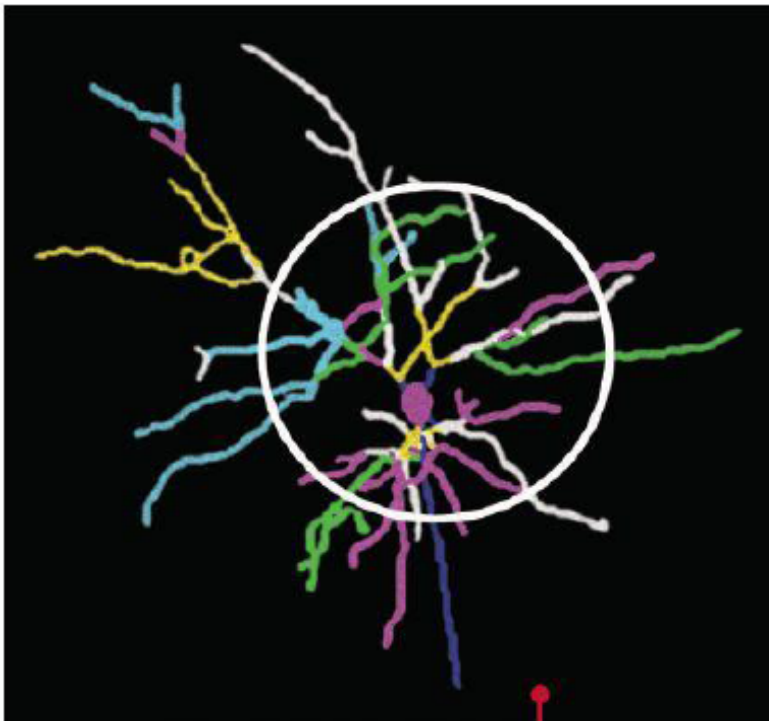
Trauma violates a child's basic assumptions about their environment's safety and benevolence.

After Eisen & Goodman (1998) and Van der Kolk – DSM-V Planning Council (2005-07)

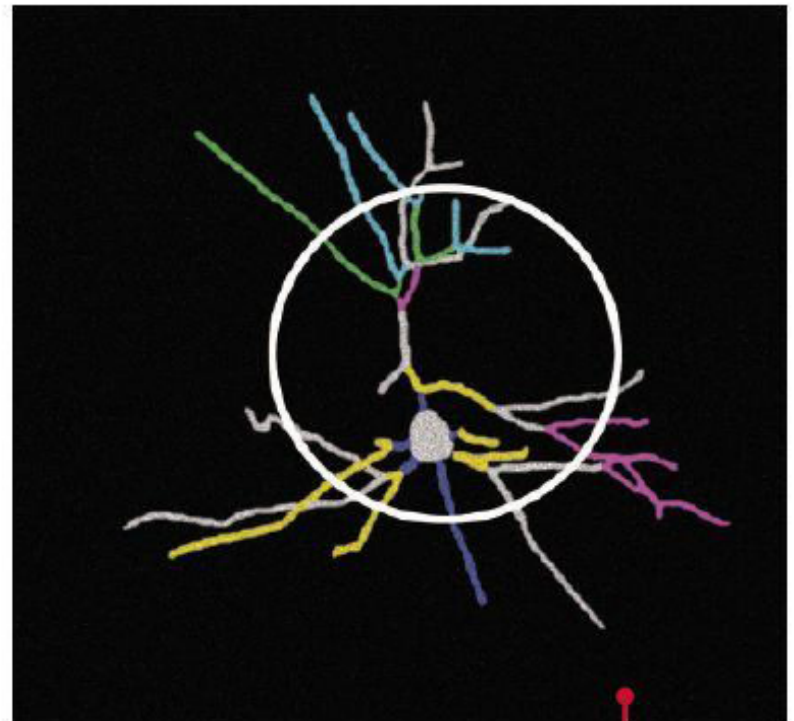


CORE CONCEPTS IN THE SCIENCE OF EARLY CHILDHOOD DEVELOPMENT

Toxic Stress Damages Developing Brain Architecture



Typical neuron: many connections



Neuron damaged by toxic stress: fewer connections

6

Scientists now know that chronic, unrelenting stress in early childhood, perhaps caused by extreme poverty, neglect, repeated abuse, or severe maternal depression, for example, can be toxic to the developing brain. While positive stress (moderate, short-lived physiological responses to uncomfortable experiences) is an important and necessary aspect of healthy development, toxic stress is the strong, unrelieved activation of the body's stress management system in the absence of the buffering protection of adult support. This image depicts the structure of neurons in the areas of the brain that are most important for successful learning and behavior in school and the workplace—the hippocampus and prefrontal cortex. The neuron on the right, which has been subjected to toxic stress, clearly displays underdeveloped neural connections, or weaker brain architecture.

Foundation

In order to fully understand the connection between child maltreatment, trauma, and brain development, we are best served beginning with how the brain was *intended* to develop . . .

- Directional growth patterns
- From rear to front and inside to outside
- Neurological prioritizing
- Arborization, Utilization and Pruning
- Myelination: wrapping and reinforcement of neurons and pathways

Stress

**Unpredictable
Severe**

**Predictable
Moderate**

*Number of Episodes
Chronicity**

*(Poly)genetics
Epigenetics
Intrauterine
exposures**

Vulnerability

Resilience

Memory Storage, Healing Post Crisis Physiological Effects

Memory stored without VOLUNTARY recall:
What does this do to our body?

Splinter analogy . . .

Health risks . . . Chronic conditions

*Remember the
ACEs study?*

Depression, obesity, tobacco use, early alcohol use,
high blood pressure, diabetes . . .



John Bowlby (1959)
viewed human beings as inherently
relationship seeking, naturally
oriented to seek “contact comfort”
and naturally inclined to seek
proximity to familiar, comforting
figures in times of threat, pain or
need.

Source: Attachment in Adulthood: Structure, Dynamics and Change by Mikulincer,
Mario and Shaver, Philip R. 2007.

Ann W Smith MS, LPC, LMFT, NCC

www.BreakthroughAtCaron.org





WHAT ALL CHILDREN NEED: THE FIVE R's

Relationships that are safe, secure, and loving—these help the child feel cared for and worthy of love.

Responsive interactions that allow the child to initiate a sound, a task, a game—and get a positive response from an adult. These help children learn that what they do has an impact on the world around them.

Respect for the child, and for the child's family and culture. Treating the child as an individual with rights and feelings goes a long way toward establishing feelings of self-esteem.

Routines provide comfort for the child, allowing him to predict what will come next during the day. They also encourage memory and the development of early organizational skills.

Repetition of activities actually strengthens the connections between brain cells. While adults usually tire of repetition, children are drawn to repeat activities and tasks over and over again in an attempt to master them.

Source: Adapted from Seibel, Britt, Gillespie, and Parlakian (2006).

Survival Decisions

When we are born we have one task:

To find the person who will look in our eyes and transmit the message

"I am here for you always"



Without this person, we will surely die. Most of us have more than one person, Mom, Dad, Grandma, Aunt, Uncle, Big sister...But they aren't all committed to us in the same way.

Even an infant knows the difference and has a preference, usually mom.*

*Cassidy, Handbook of Attachment, 1999





Survival Decisions

The connection made with this special person is called **attachment** and will begin the process of wiring our brains for relationships for the rest of our lives.

"Plan A"

We are born believing that we are the center of the universe and all of our needs will be met.

Human beings are hard wired to attach and our survival depends on it. Infants are helpless and vulnerable and remain dependent on their caregivers for physical care, safety and healthy development for many years.



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The Shift from Plan A to Plan B: How children get what they need in stressful families

What we didn't know 30 years ago was that the early years, especially birth to age 5, are extremely important in how our brain is wired for future experience with love and connection.

In any family, children discover early on that Mom and Dad (because they are human) are not totally consistent or predictable.



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TYPES OF STRESS

Type of stress	Example	What happens in the brain
Positive stress occurs when a child confronts a challenging situation, but he is able to handle it on his own, or he has guidance from an adult	A 1-year-old successfully calms himself at naptime; a shy 3-year-old on the first day of child care is made to feel welcome by the childcare worker; a 5-year-old successfully climbs a tree	The brain releases a short burst of the stress hormone cortisol, but managing the challenge makes the stress response a short one; this is beneficial for the brain over time—it increases the brain's capacity to self-regulate
Tolerable stress can occur in the face of a more serious threat, if there is a consistent, responsive adult to help the child adapt and feel safe	A loss of a loved one, a natural disaster, a frightening injury or hospitalization—with the help of an adult who can respond to the child's physical and emotional needs	If the adult makes the child feel relatively secure and comforted, cortisol levels will return to baseline, with no long-term harm to the brain
Toxic stress can occur when there is a strong, frequent, or prolonged exposure to an adverse experience and there is no adult available who will support or comfort the child	Physical or sexual abuse, physical or emotional neglect, extreme poverty, severe caregiver depression, or any of the examples listed in tolerable stress if there is no supportive adult available	These situations can create unusually high levels of cortisol for long periods of time. This can disrupt developing circuits in the brain, leading to depression, anxiety, PTSD; behavioral and learning difficulties, and health problems in adulthood
Traumatic stress is an extreme form of toxic stress, and occurs in response to an event or series of events that threaten serious injury or death to the child or others	Traumatic stress occurs in response to physical or sexual abuse, domestic violence, intrusive medical procedures, and life-endangering accidents such as near drowning	High levels of cortisol for long periods of time can disrupt developing circuits in the brain, leading to depression, anxiety, PTSD, behavioral and learning difficulties, and health problems in adulthood.

Source: Created using content from National Scientific Council on the Developing Child (2005), in consultation with Alicia Lieberman, Ph.D., Irving B. Harris Endowed Chair in Infant Mental Health, Department of Psychiatry, University of San Francisco.



The Shift from Plan A to Plan B:

How children get what they need in stressful families

Plan B - Increase the quantity and quality of contact with our person. But how?

If a child is raised in a painful or stressful environment he or she will need to intensify efforts to get safety, security and comfort.

As early as age 3, children will begin to adapt and do whatever is necessary for attachment, connection and/or attention regardless of circumstance.



INSECURE ATTACHMENT

Anxiety increases when we don't have a secure and consistent connection as children.

How we adapt and try to maintain connection depends on many factors including:

- Temperament
- Birth order and Siblings' choices
- Degree of stress or trauma

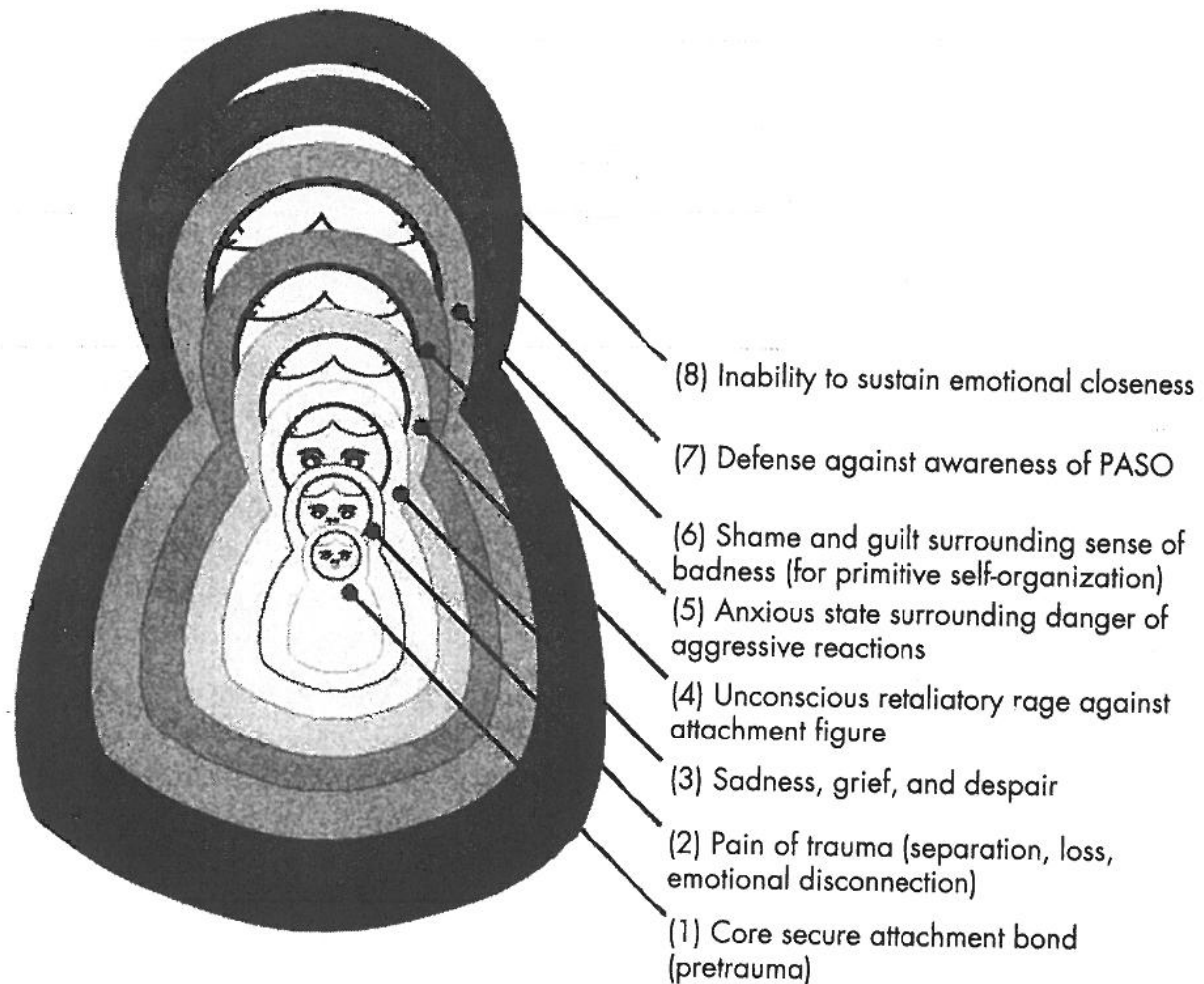




INSECURE ATTACHMENT

- Patterns emerge without conscious awareness. Some traits must be used to excess and others may be disowned.
- Coping mechanisms developed out of necessity in early childhood are used well into adulthood.
- These brilliant survival patterns will sabotage the search for loving connection as adults.

Attachment Trauma



©2001 Marion F. Solomon & Robert J. Neborsky

Personality Development & Core Emotion

Maslow's Hierarchy of Human Needs

Erickson's Stages of Personality Development



Building blocks of internal experience



*After
Ogden &
Westcott*

Cognition Thoughts, cognitive distortions, negative beliefs, misinterpretation of stimuli

Emotion (eg. fear, anger, joy) and subtle nuances of feeling and moods (eg. a sense of peace or uneasiness)

Five – sense perception Internally-generated sensory perceptions (ie. Smells, tastes, images, sounds & touch)

Movement Gross motor movements (eg. postural changes, gestures, facial expressions) and micro-movements (eg. trembling, heart pounding)

**Interoception
(body sensation)** Physical feelings created as various body systems monitor and give feedback about internal states

How does it go wrong in PTSD?



*After
Ogden &
Westcott
(revised
Bricker
2016)*

Cognition intrusive recall, amnesia, distorted cognitions & beliefs, concentration, psychological distress, misattribution/blame

Emotion emotional distress, nightmares, anger, persistent negative affect, anhedonia, persistent guilt & shame, depersonalization

Five – sense perception Internally-generated sensory perceptions (eg, olfactory flashbacks, auditory/tactile hallucinations), derealization

Conscious avoidance responses, fight/flight/freeze behaviors,
Movement physiological hyper-responsiveness (trembling, heart pounding, startle response), self-destructive behaviors

**Interoception
(body sensation)** flash- Physiological hyper-arousal, exaggerated startle response, dissociation responses, backs, sleep disturbance, panic symptoms



A Venn Diagram Heuristic for Working With Co-Occurring Disorders and Trauma

Personality Features and Disorders

Addiction
Chemical
Behavioral

Psychiatric Illness
Mood Disorders
Anxiety Disorders
Psychotic Disorders

A
Shared
relationship
between
addiction and
psychiatric illness

B
Shared
relationship
between
addiction and
trauma

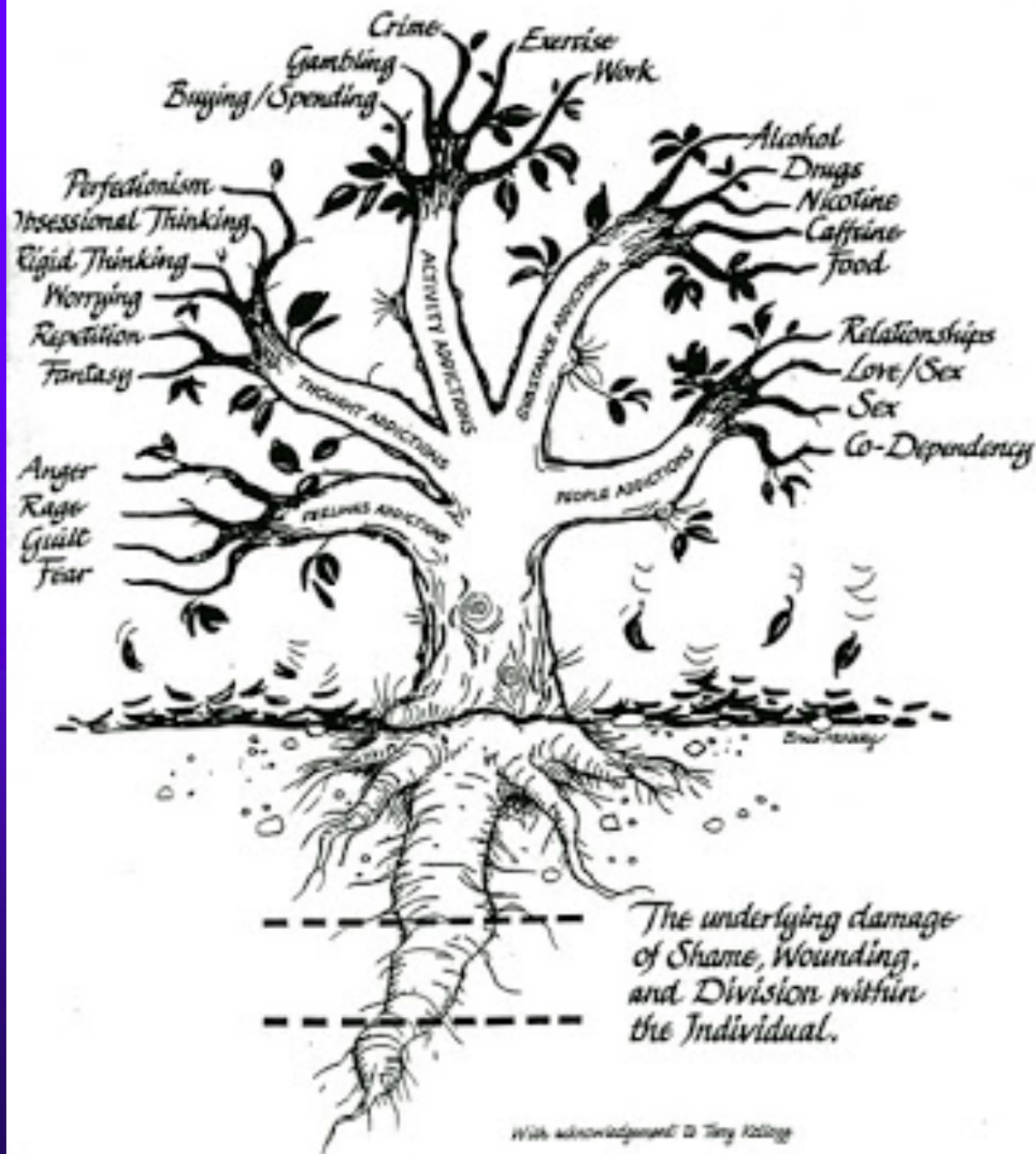
D
Represents
patient at most
symptomatic with
all three areas
activated

C
Shared
relationship
between
psychiatric
illness and
trauma

Trauma
Abuse
Neglect
Wounds/Loss /Grief
Shame
PTSD



The Addiction Tree





We have to help our Client to develop a “new normal”

- ◆ The elevated physiological baseline will respond to relaxation; can be “re-set”
- ◆ Breathwork is the one place in the body where the sympathetic and para-sympathetic nervous system come together under conscious control
- ◆ Regulation of energy and arousal by the breath facilitate modulation of “feelings” and “emotions”



Speaking the Language of the Nervous System

THE 5 TRM SELF-STABILIZATION SKILLS

THE TRAUMA RESILIENCY MODEL (TRM) is based on teaching people a basic set of self-stabilization skills that help reregulate the nervous system in the wake of upsetting and traumatic experiences. Below are the five biologically based TRM skills that we teach within this model.

Skill 1: *Tracking* is achieved through observation, self-report by the client, and attunement between the practitioner and client. As the nervous system is tracked, the client learns to discriminate between dysregulated states within the body (constricted muscles, rapid breathing, heart rate), and sensations of comfort (expanded breathing, slower heart rate, muscle relaxation). Tracking is used with all skills.

Skill 2: *Grounding* refers to our sense of the present time and space, and is the secure foundation upon which we build our interpersonal relationships. It's introduced by inviting the client to bring awareness to how the body is physically supported at the moment. The sensory attention to the present stimulates in the nervous system a parasympathetic response that the practitioner can observe and the client can sense.

Skill 3: *Resourcing* is a technique for focusing awareness on positive experiences—highly valued relationships, fond memories, imagined events—that trigger a sense of well-being. For example, a person might be asked to think about a beloved family member, and then be instructed to attach the somatic sensations that arise to the inner image. Those positive sensations can then become resources for counterbalancing negative sensations and reregulating the nervous system.

Skill 4: *Resource Intensification* refers to the process of helping people enhance the multisensory sensations that arise from paying attention to personal resources. This helps override the stress and anxiety—tied to the amygdala's strong survival focus—that are typically present in traumatized people.

Skill 5: *Shift and Stay* is a self-help skill. The client learns to shift attention from distressing sensations that may arise or be triggered during the day to more comforting sensations associated with Grounding and Resourcing, and then stay attuned to the comforting sensations until regulation occurs. ■

—Laurie Leitch and Elaine Miller-Karas



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—Laurie Leitch and Elaine Miller-Karas



Immediately **IMPROVE** Negative Events with more Positive Actions

- I IMAGERY:** Create a situation with the imagery different from the actual one; go to an imaginary safe place, imagine lying on a beach.
- M MEANING:** Try to find some kind of purpose for events: “make lemonade out of lemons,” focus on positive aspects of a painful situation, ask what have I learned?
- P PRAYER:** The complete opening of oneself to the moment and to a higher power, greater wisdom, or wise mind.
- R RELAXATION:** Change how your body responds to stress in a crisis; listen to a relaxation tape, sit in a hot tub, take 10 deep breaths, half smile.
- O ONE THING IN THE MOMENT:** Focus your entire attention on what you’re doing right now.
- V VACATION:** Take time out to regroup; pull the covers over your head, ask someone to take care of you.
- E ENCOURAGEMENT:** Cheerlead yourself; repeat over and over “I can stand it,” “It won’t last forever,” “I’m doing the best I can.”



Resource Tapping – an EMDR-related Intervention for Physical Healing

[based on the work of Ronald Siegel PhD on chronic pain and Laurel Parnell PhD on EMDR]

Michael G Bricker MS, CADC-2, LPC

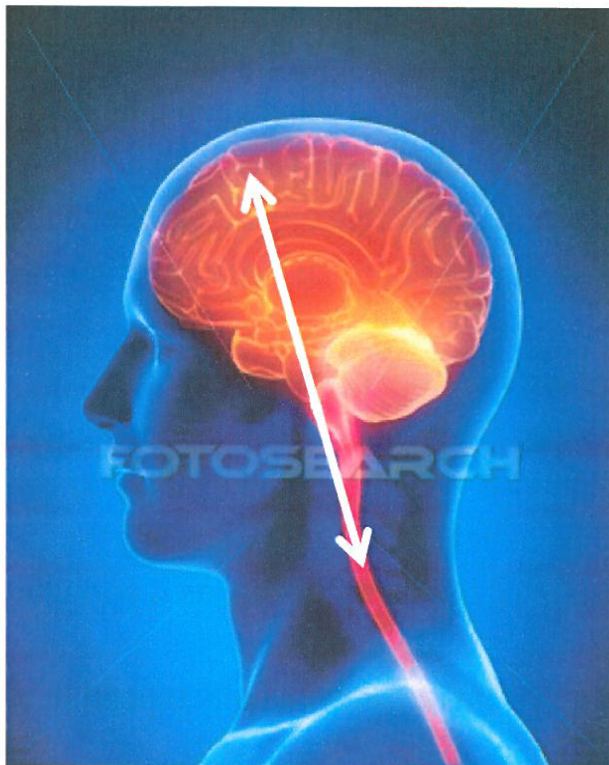
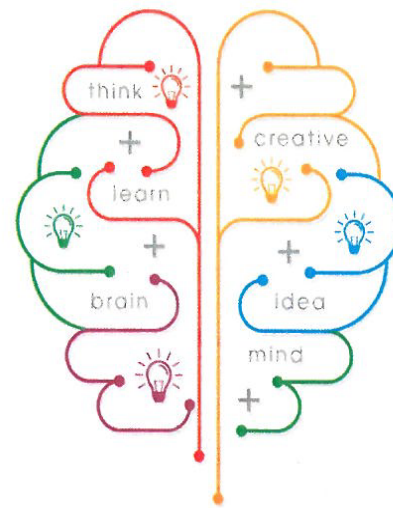


Figure 1 – mindfulness, imagery & relaxation

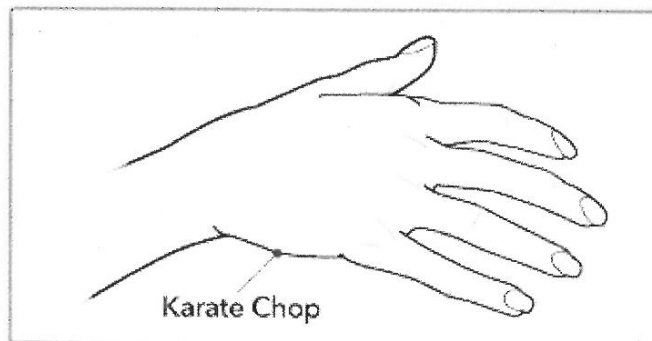
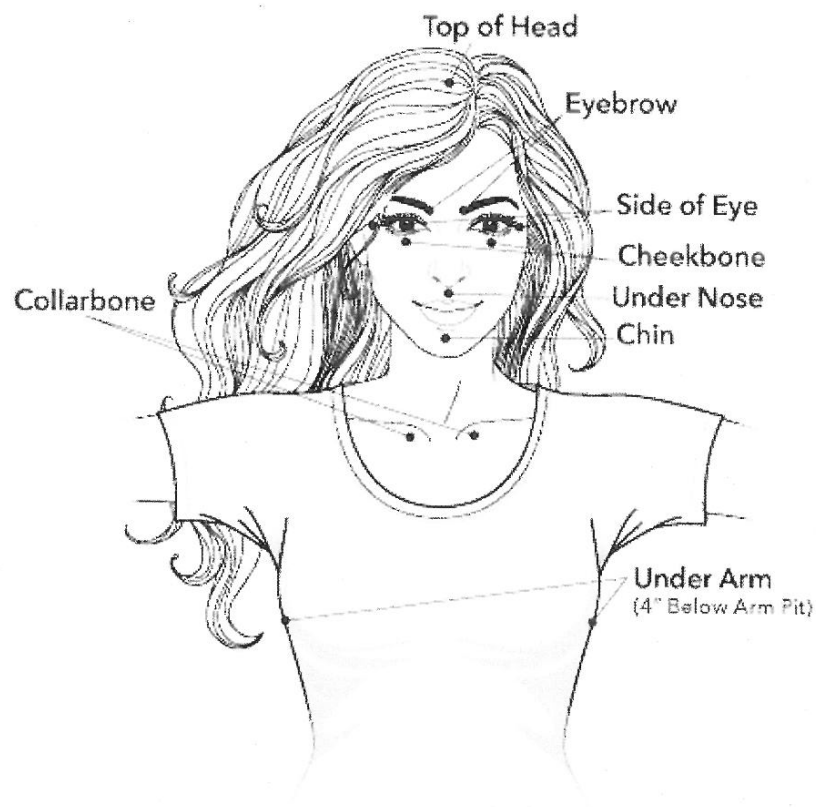


Left hemisphere – logic, language
Right hemisphere – imagery, creativity

Figure 2 – bilateral stimulation



EFT Tapping Points



DBT Restores Balance



Spiritual Being
(meditation)

Social Being
(distress tolerance)

Physical Being
(relaxation)

SELF

Cognitive Being
(re-structuring)

Emotional Being
(self-regulation)

The Polyvagal Theory (via Porges, 1995)

Stephen Porges discovered the vagal nerves hold the key to a third system of the body that is **beyond** fight or flight.

It is called, communication.

Spirituality, conversation and organization emerge as a function to lift and lower the rate of the heart at will.



Cycle of the Breath

“Emotions” - MIND



“Feelings” - BODY





We are opening a
door to healing.

*Thank you for
the work you do!!*

Mike Bricker MS, CADDC-II, LPC
LCS Drug Court Treatment Program





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