Getting in Sync: Reviving the Potential for Social Engagement in Maltreated Children

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In Sync, Out of Syn

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

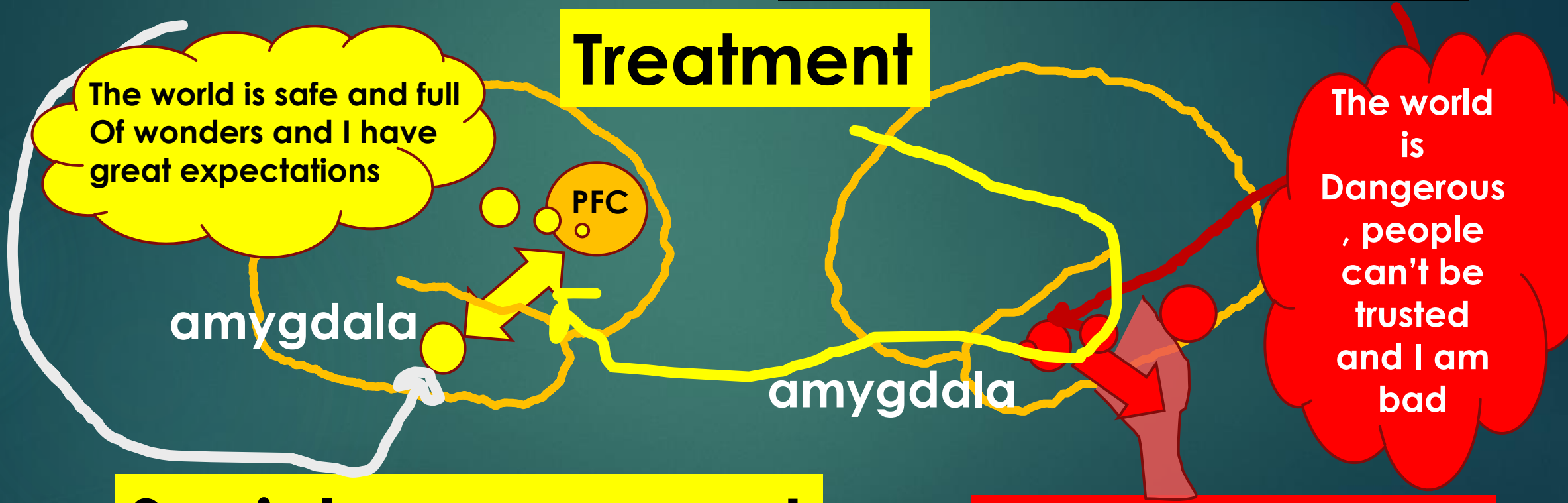
BLOCKED CARE: *WHEN THE CHILD'S BLOCKED TRUST TRIGGERS THE SUPPRESSION OF CARING IN THE CARER*

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

unsafe environment

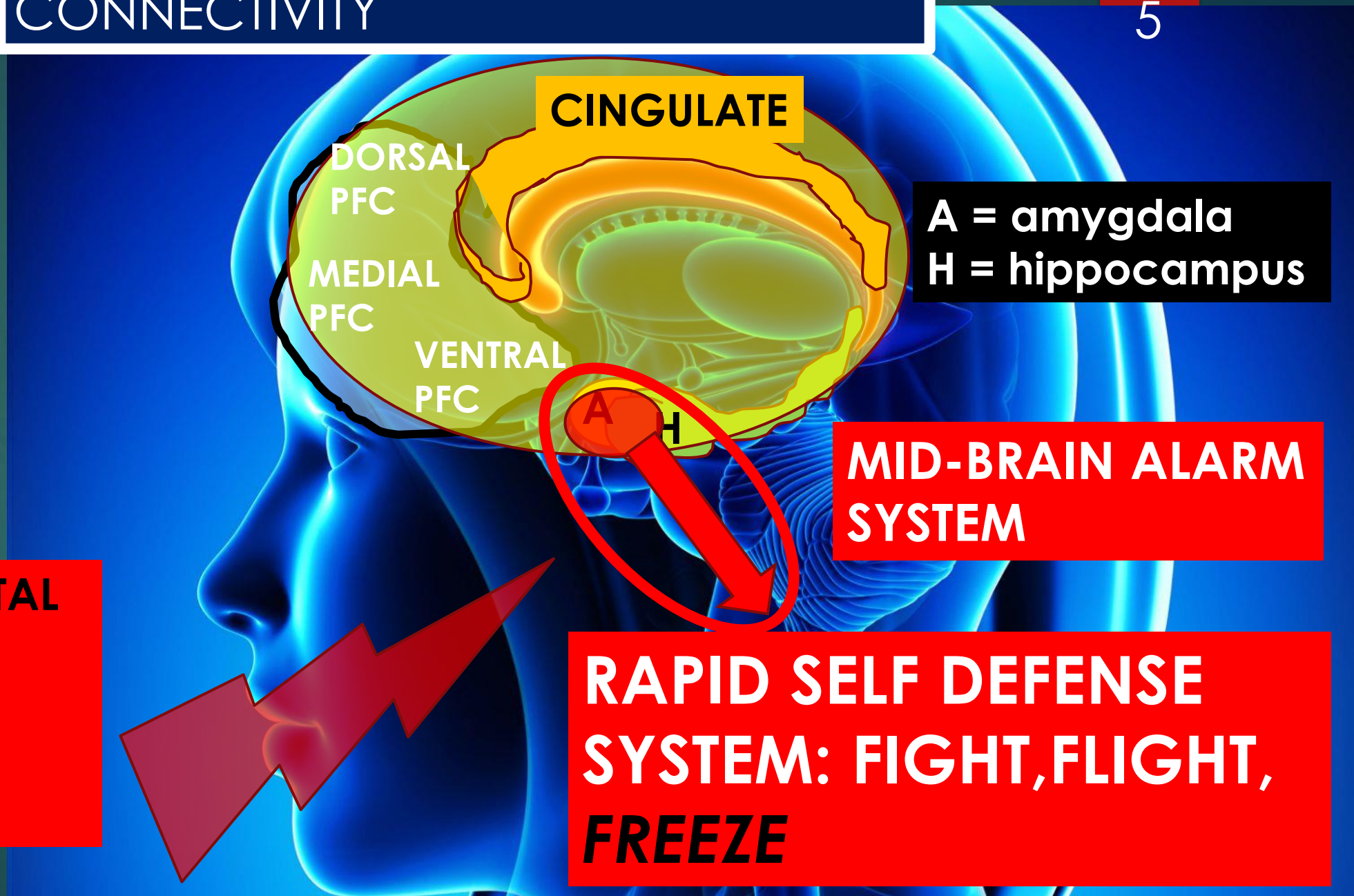


Social engagement
Slow and Curious

Self defense
Fast and furious

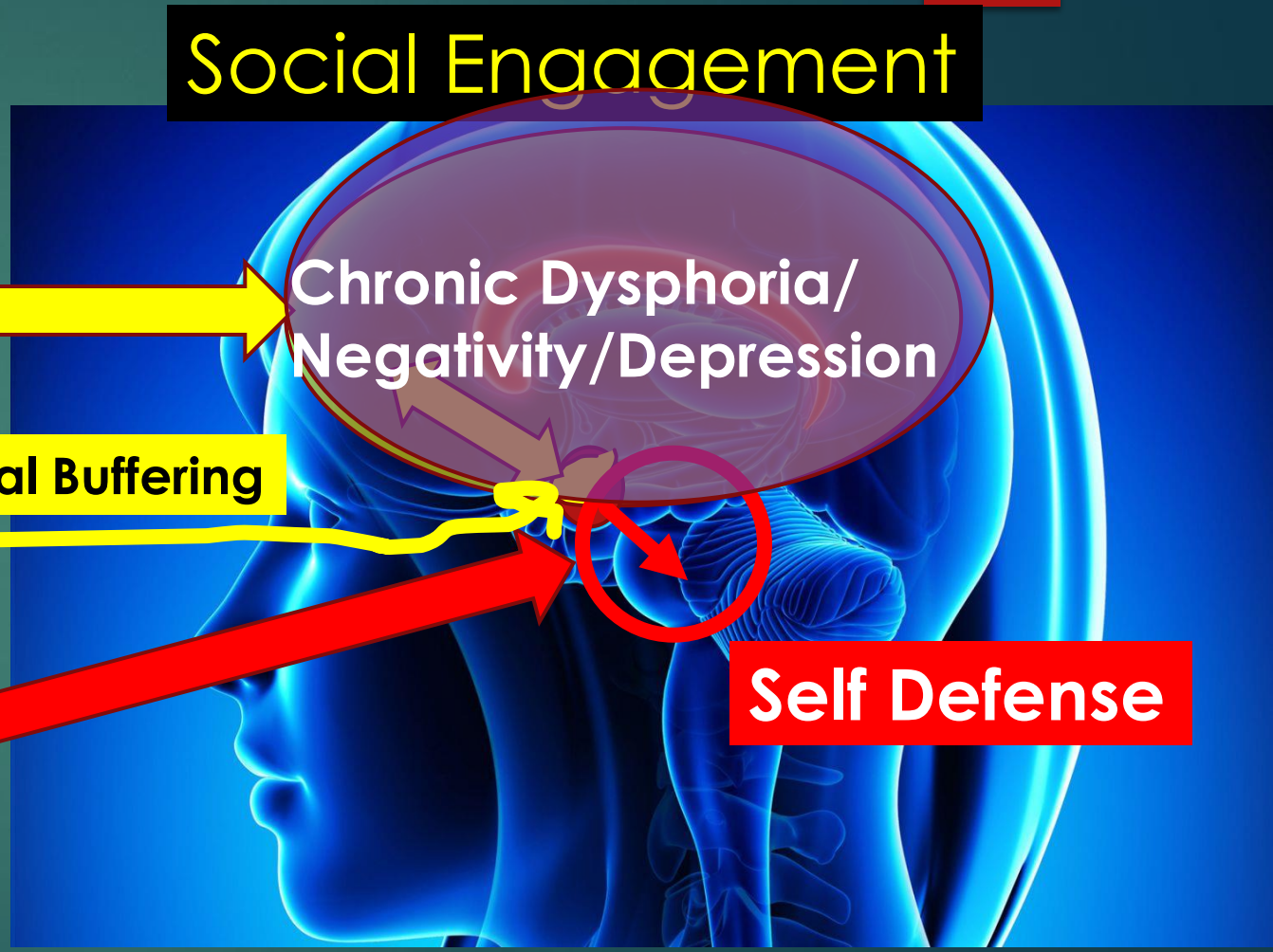
BRAIN NETWORKS AND FUNCTIONAL CONNECTIVITY

SOCIALLY ENGAGED BRAIN SYSTEM VERSUS DEFENSIVE BRAIN SYSTEM



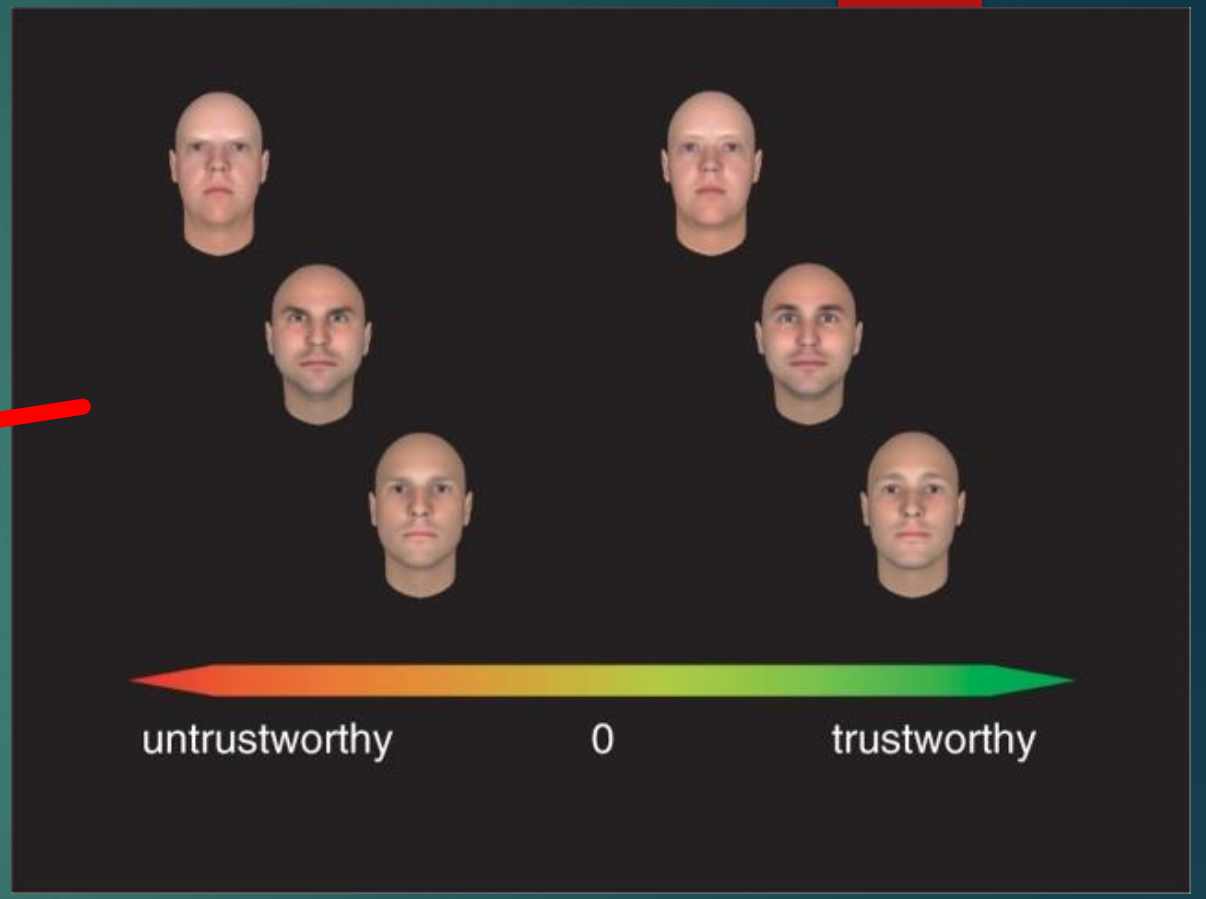
DEVELOPMENTAL TRAUMA, INESCAPABLE EARLY LIFE STRESS

In syn, Out of syn, Getting In Syn



Amygdala response to untrustworthy faces

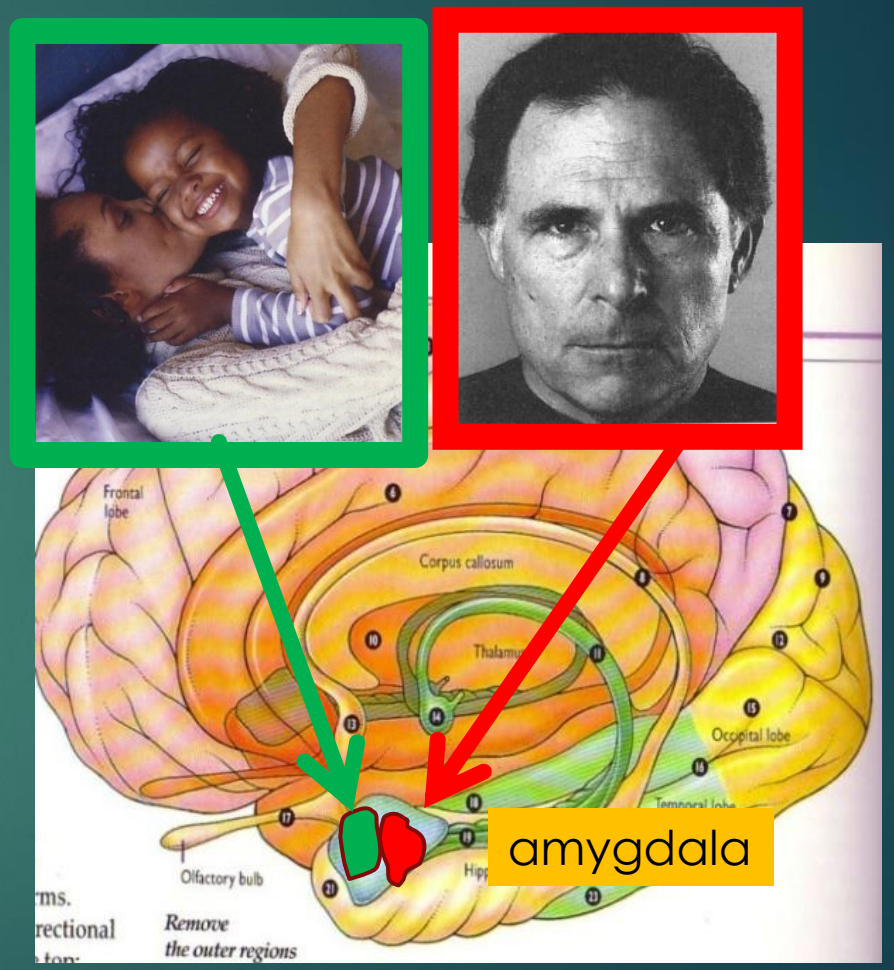
Avoid/ Defend 1/10 second



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

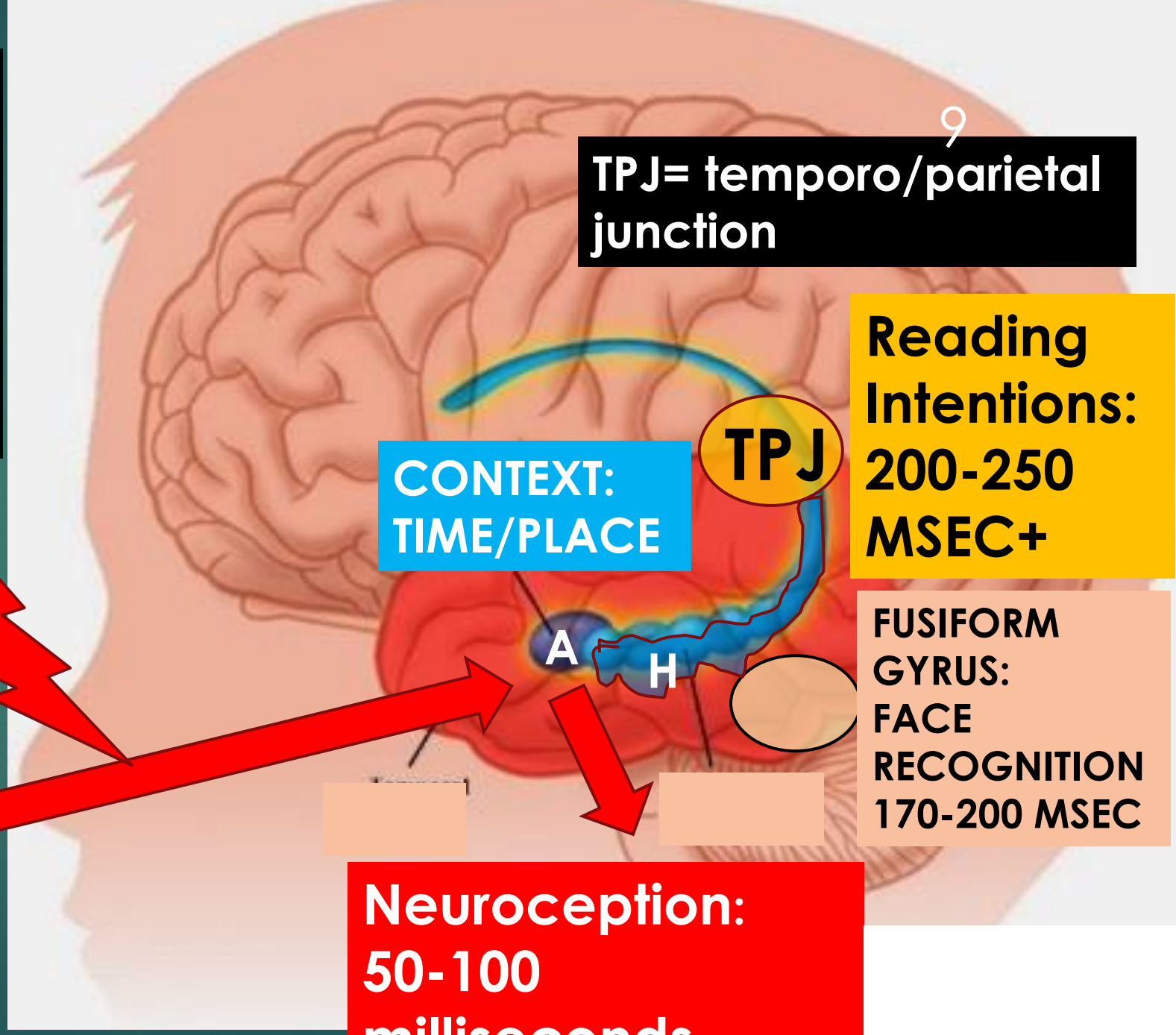
Amygdala neurons responding to negative and positive experiences



OPTOGENETIC RESEARCH WITH LIVE, MOVING ANIMALS

READING ANOTHER PERSON'S INTENTIONS: FIRST IMPRESSIONS VS "CONTEXTUALIZED" UNDERSTANDING

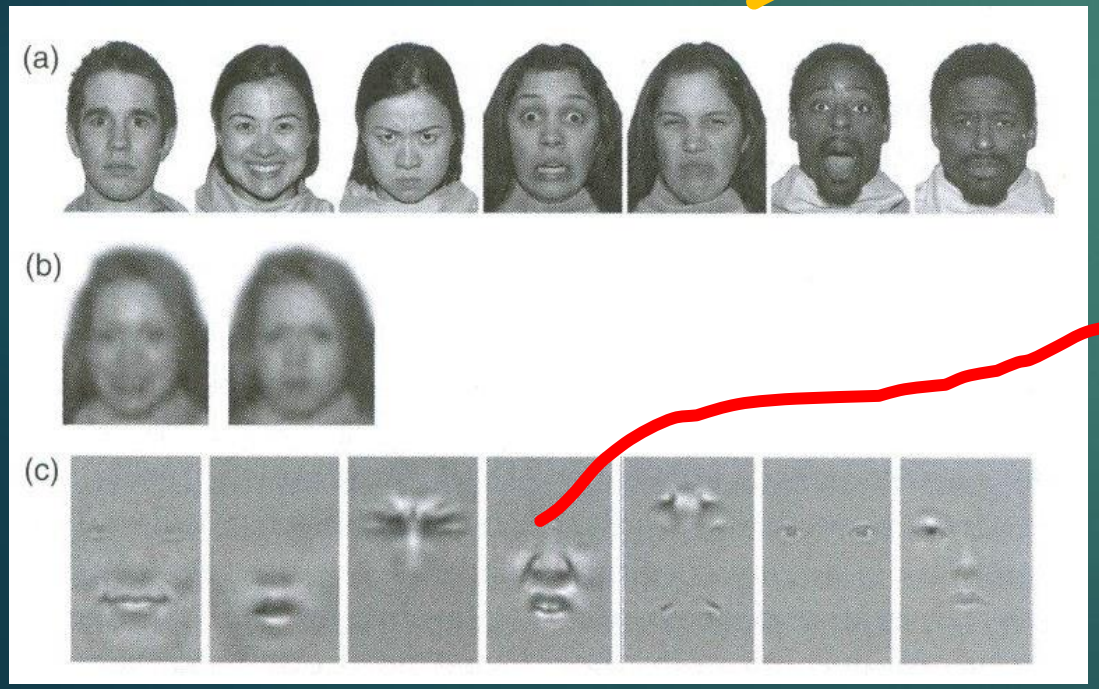
EARLY LIFE ADVERSITY

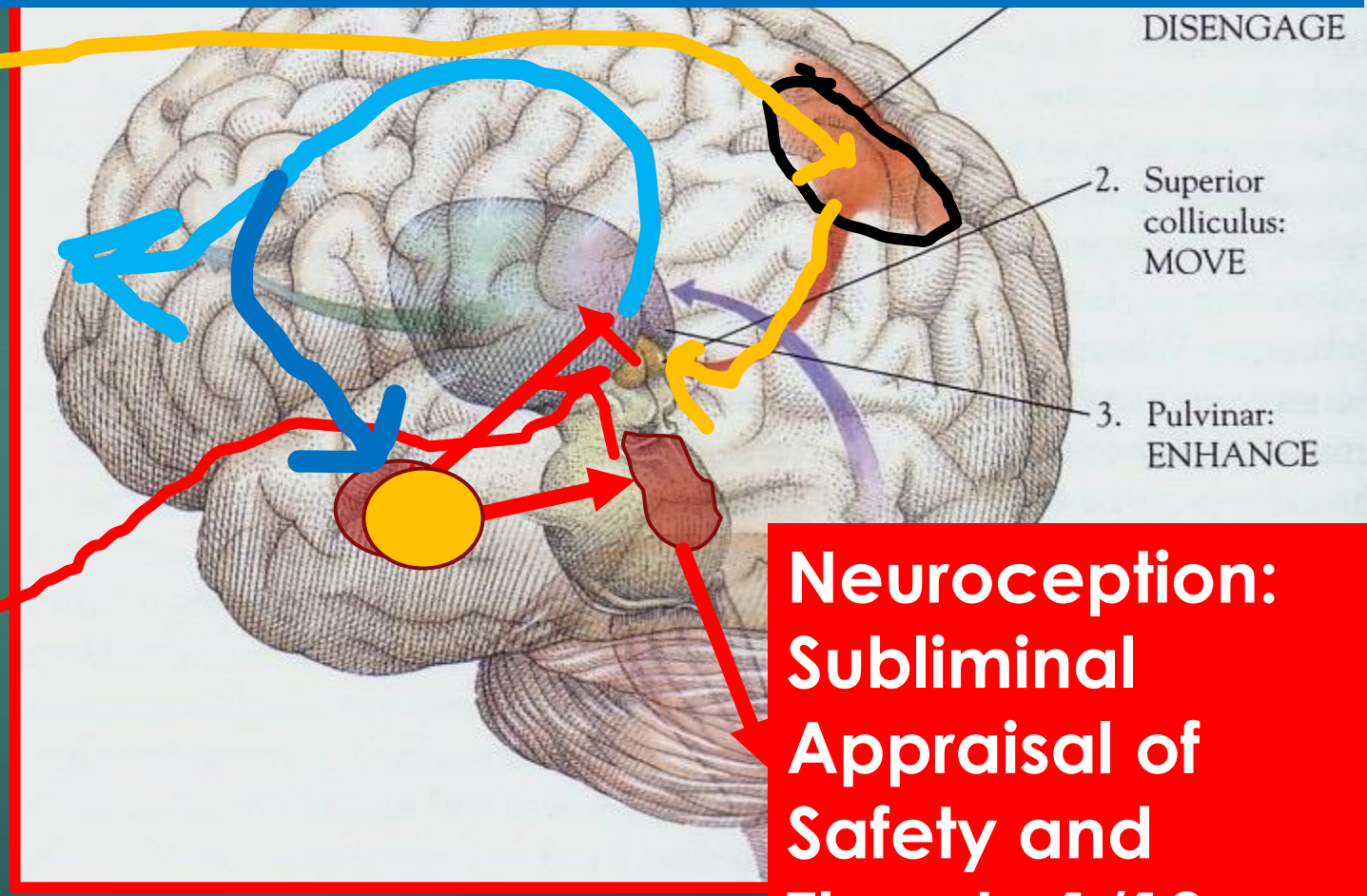


A = AMYGDALA
H = HIPPOCAMPUS

Collicular pathway vs cortical pathway

Slower, Cortical, Conscious Processing: "Top Down" Can inhibit the "Bottom Up" Circuit and Support more "Thoughtful" Decision Making





Neuroception: Subliminal Appraisal of Safety and Threat 1/10 sec

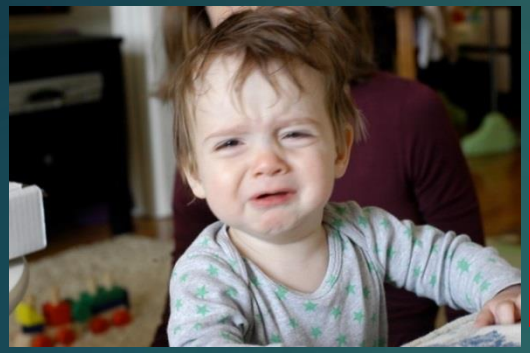
INTERSTATE TRAVEL OR THE "ELEVATOR" MODEL OF THE BRAIN: ALL ME

(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

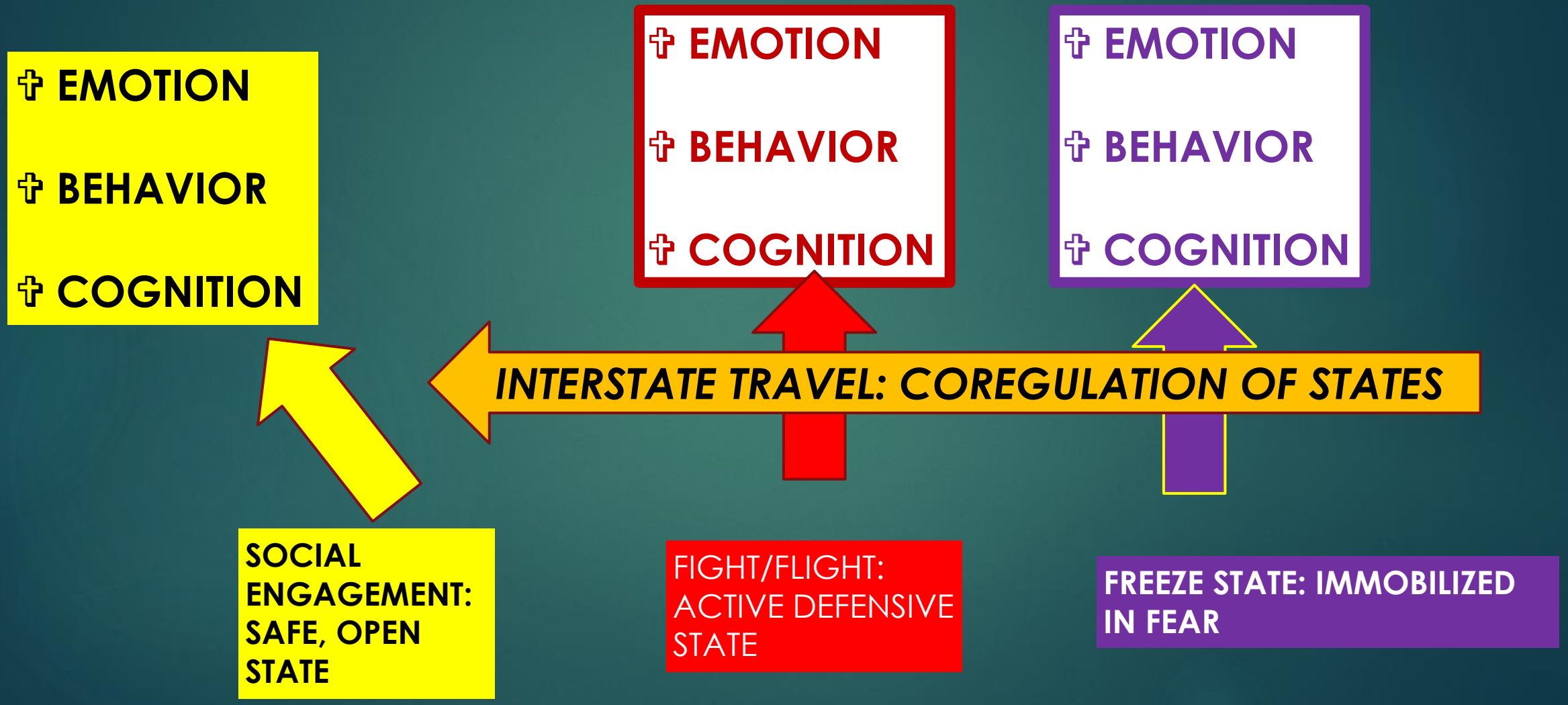
FIGHT/FLIGHT

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

FROZEN ME

FREEZE-IN-FRIGHT

STATE-DEPENDENT FUNCTIONING AND INTERSTATE TRAVEL



What Makes Attachment So Important?

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

INTERSUBJECTIVITY

An Open & Engaged Stance Toward the Experience of Each Other

Synchronized Intentional Movements involving States of Affect, Attention, and Motivation

Synchronised Nonverbal (Bodily) Communications Lead to regulation & Integration

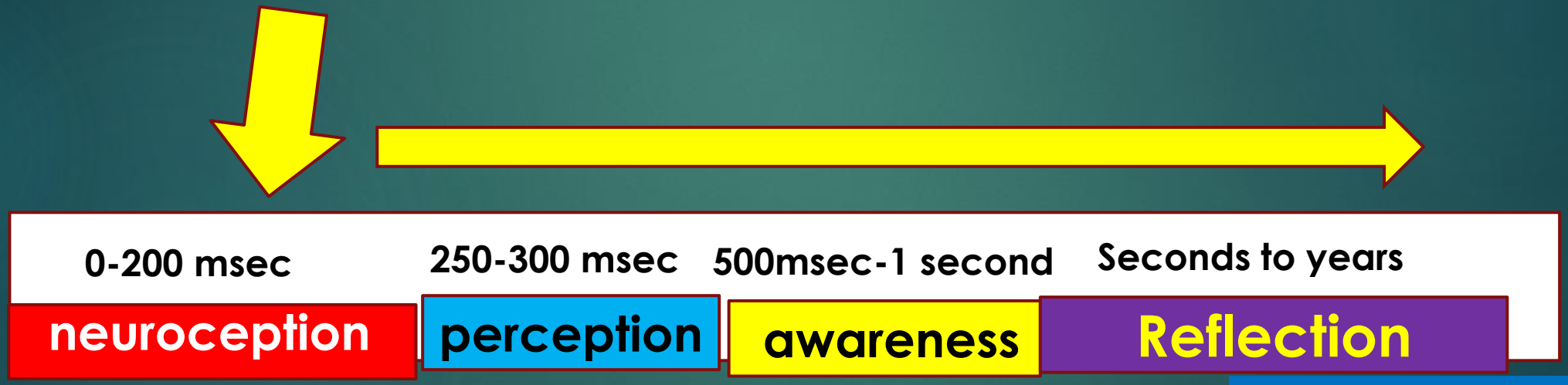
- **Matched Affect:**
  Intensity, Rhythm, Beat Contour, Duration, Shape
- **Joint Attention:**
  Light to Fully Engaged Focus
- **Clear Intention:**
  From Sense of Gentle, Compassionate, Enquiry to Sense of Urgency to Understand & be Helpful

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

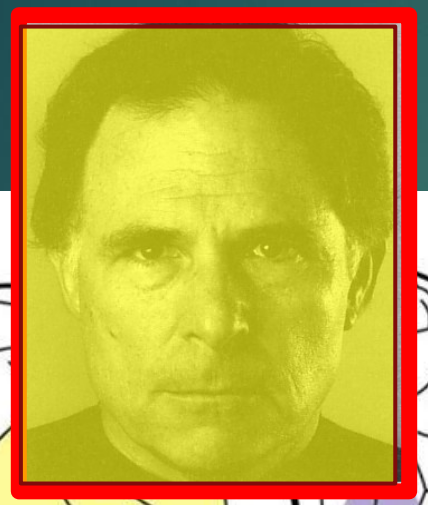
NON VERBAL SAFETY MESSAGES: FACE, VOICE, TOUCH



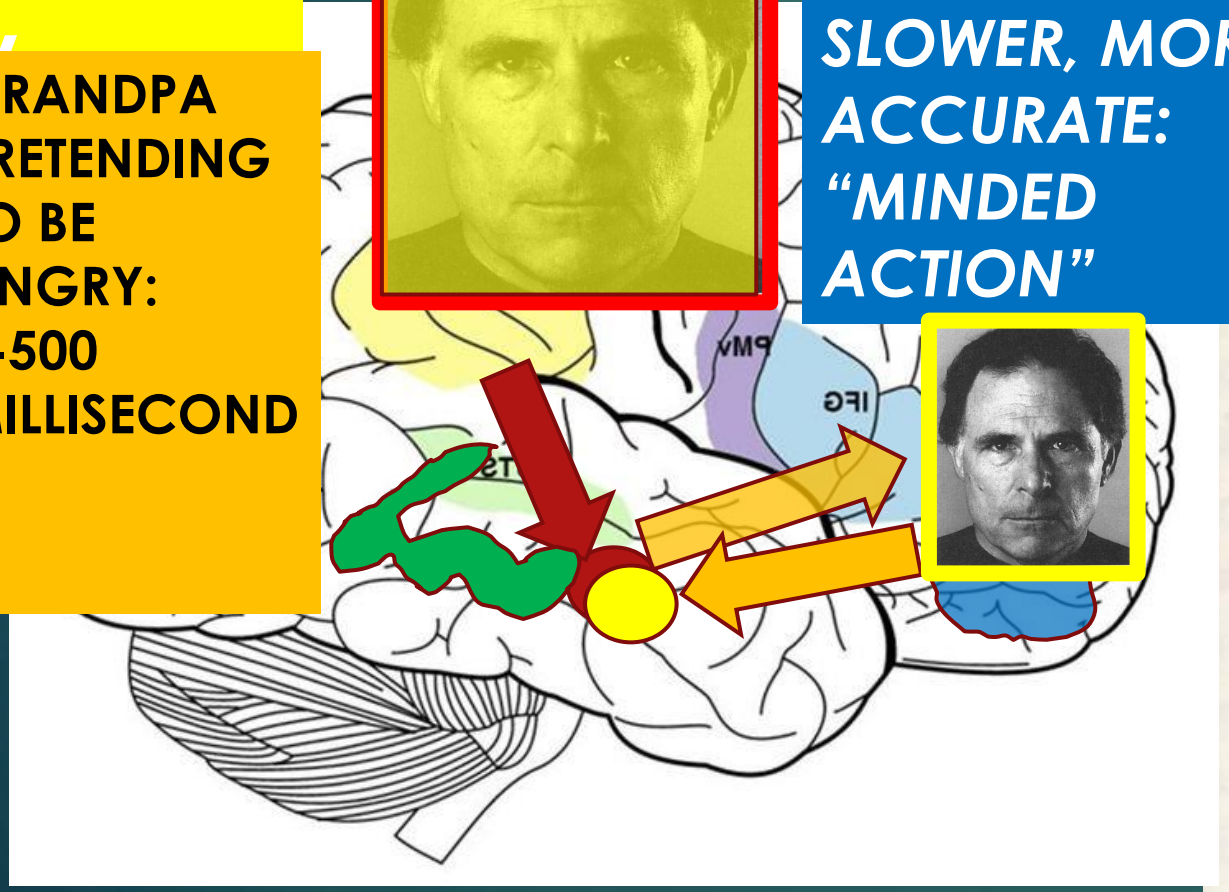
Decision-making in safe and unsafe environments: the "SPEED VS ACCURACY TRADEOFF (SAT)"

SAFE

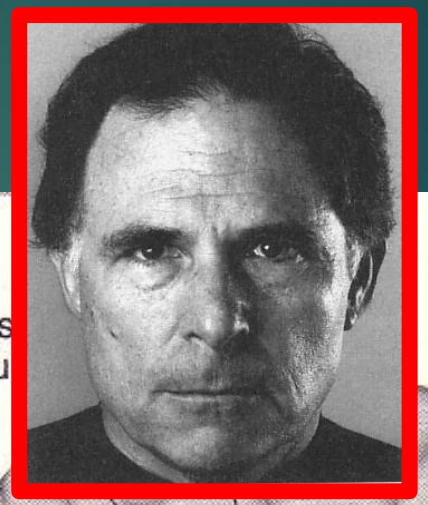
GRANDPA PRETENDING TO BE ANGRY: 4-500 MILLISECONDS

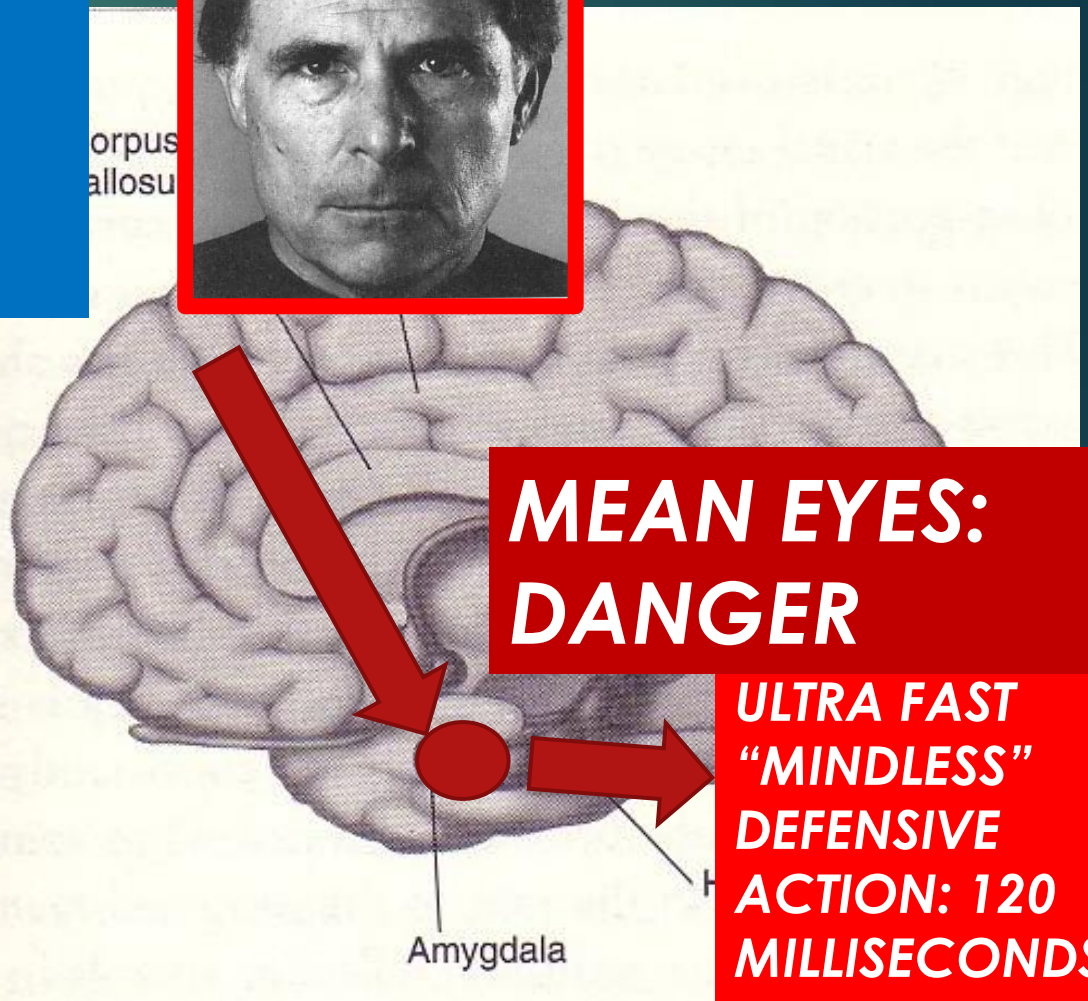


EVIDENCE ACCUMULATION: SLOWER, MORE ACCURATE: "MINDED ACTION"



UNSAFE

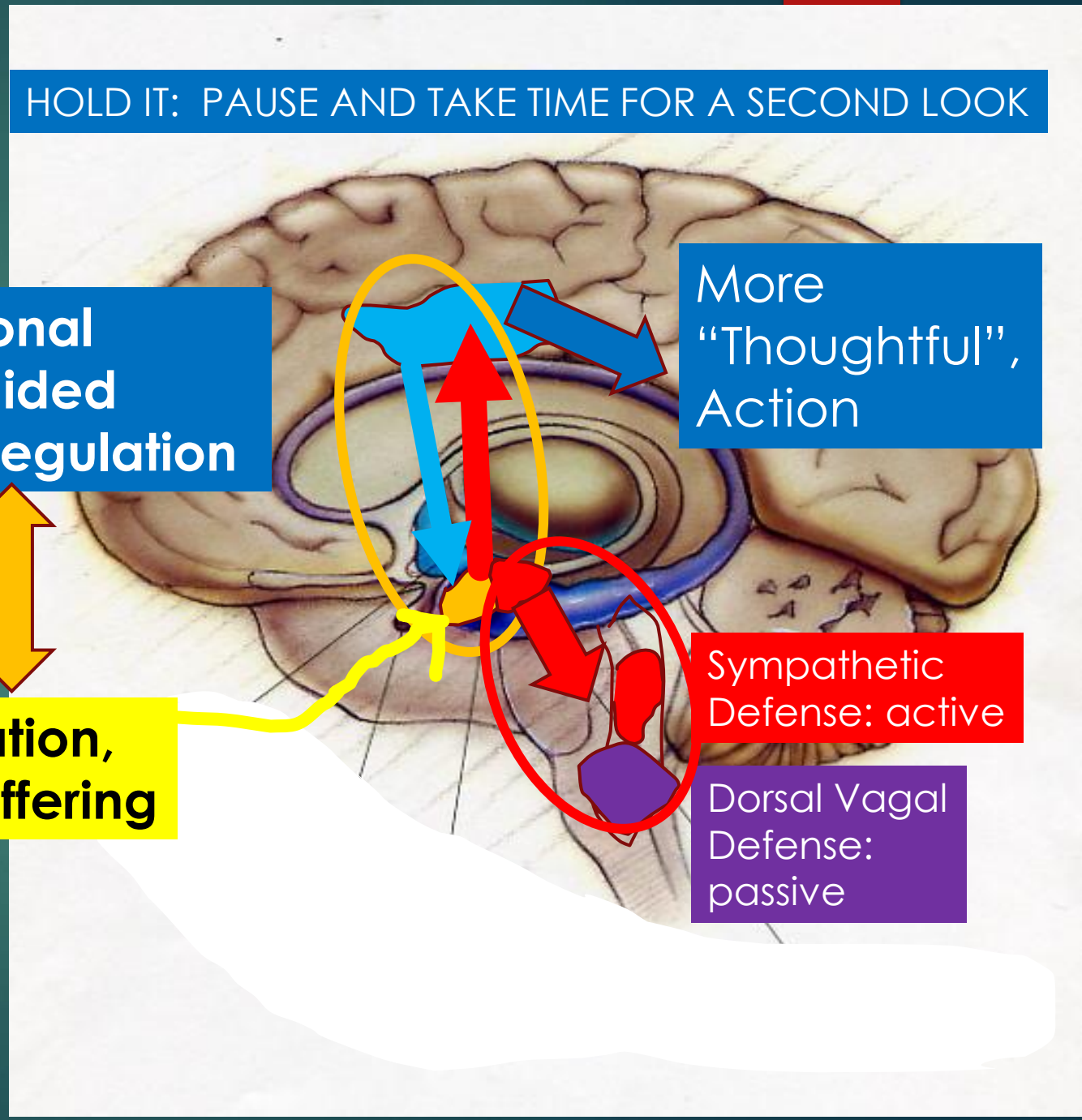




MEAN EYES: DANGER

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 panelOdedKlavir[1]RotemGenud-Gabai[1]RonyPaz[1]

When SHE can't show it, you have to know it. She needs you

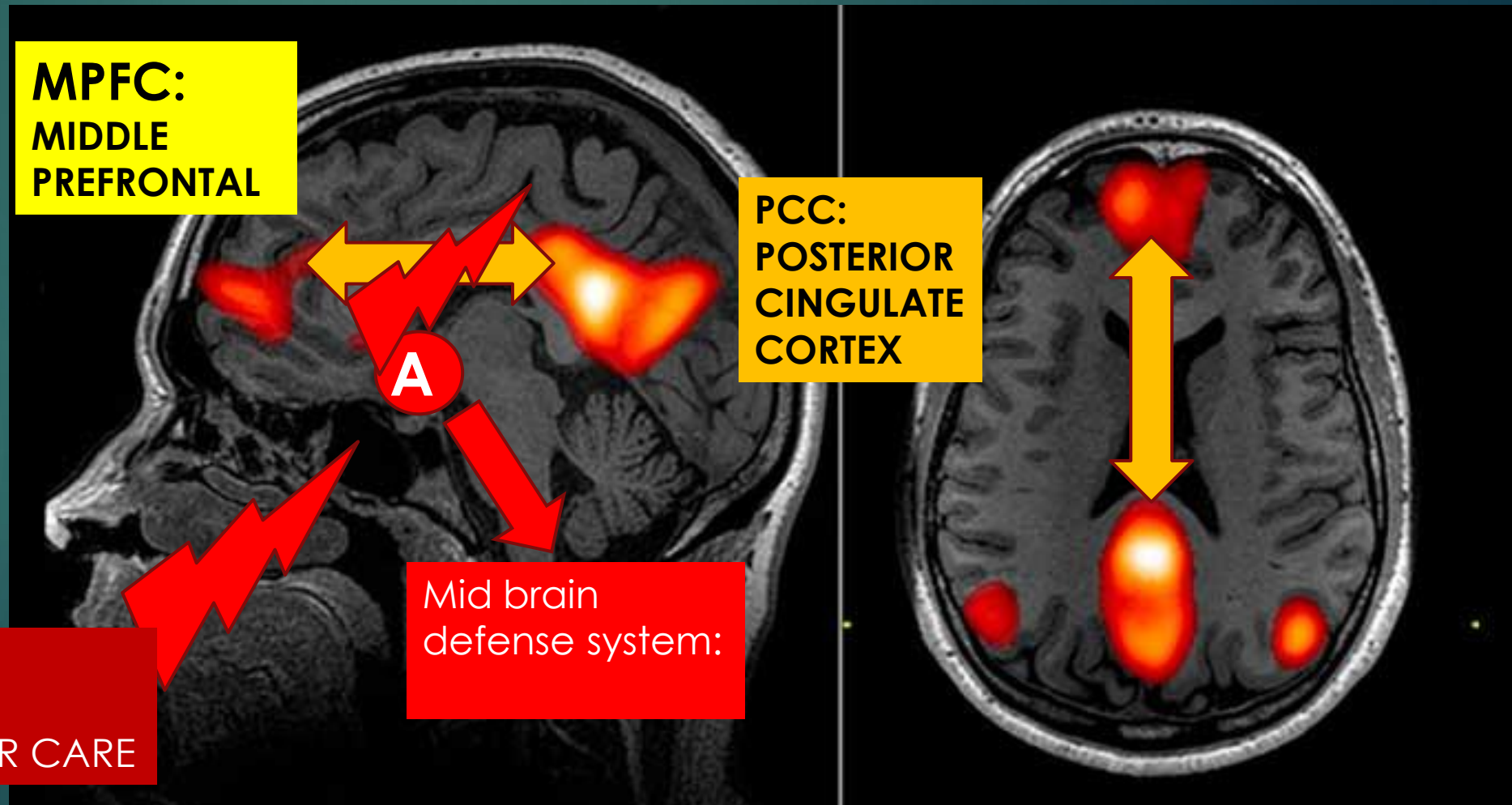
BUT SHE'S AFRAID TO FEEL SAD! SO HELP HER FEEL SAFE ENOUGH TO BE SAD AND SEEK COMFORT

BLOCKED SOCIAL PAIN: SURVIVING THE LACK OF GOOD CONNECTIONS BY SUPPRESSING THE PAIN OF DISCONNECTION

THE SELF SYSTEM AND DEVELOPMENTAL TRAUMA

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

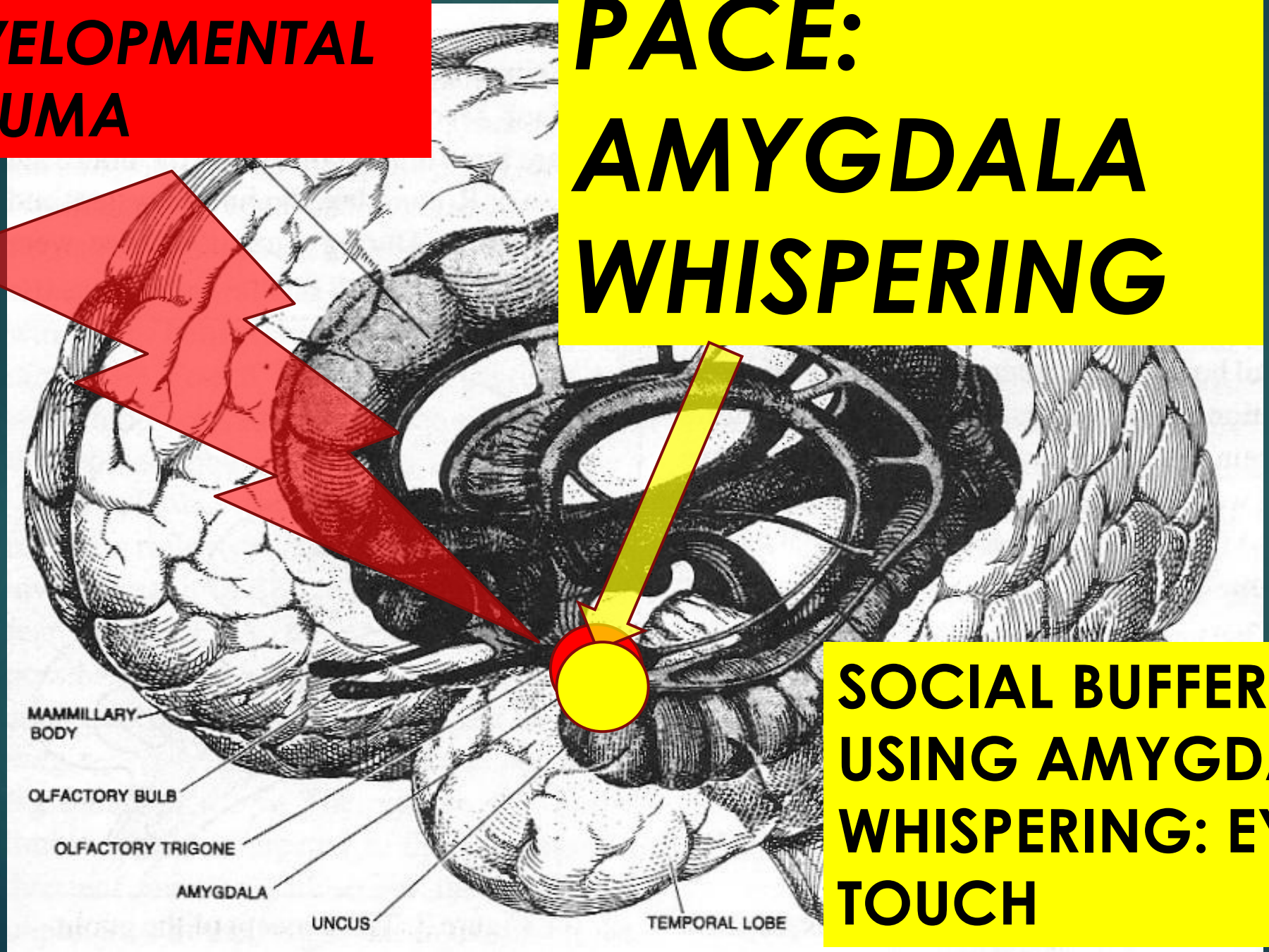
THE DEFAULT MODE NETWORK OR DMN: WHERE WE GO IN OUR BRAINS WHEN WE ARE SAFE ENOUGH TO BE WITH OUR SELVES, REMEMBERING, REFLECTING, AND CHANGING OUR SELF-RELEVANT BELIEFS AND NARRATIVES



DEVELOPMENTAL TRAUMA: EARLY EXPOSURE TO VERY POOR CARE

DEVELOPMENTAL TRAUMA

PACE: AMYGDALA WHISPERING

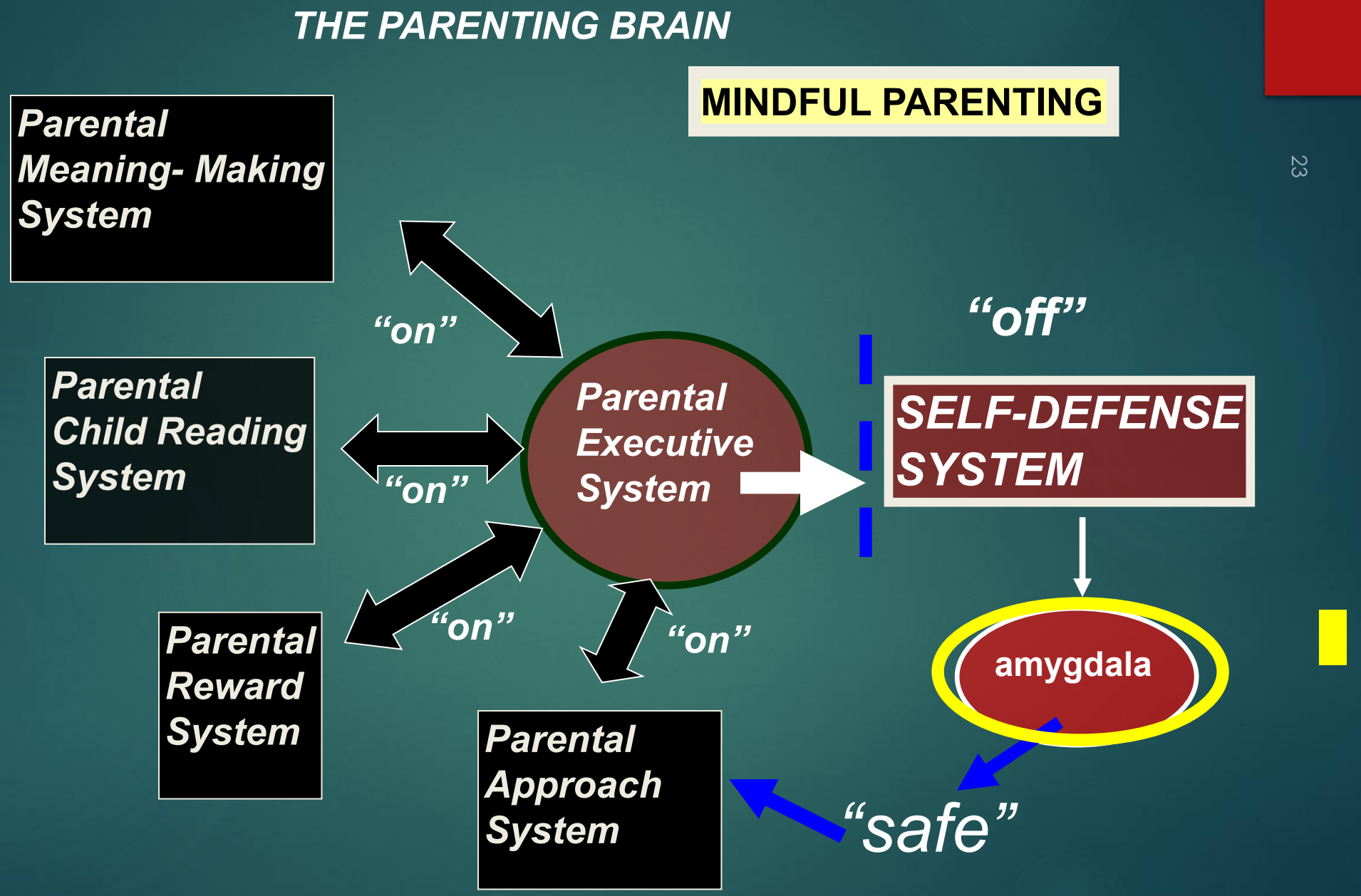


PACE THIS!: TARGETING THE EPICENTER OF BLOCKED TRUST

THE AMYGDALA

SOCIAL BUFFERING USING AMYGDALA WHISPERING: EYES, VOICE, TOUCH

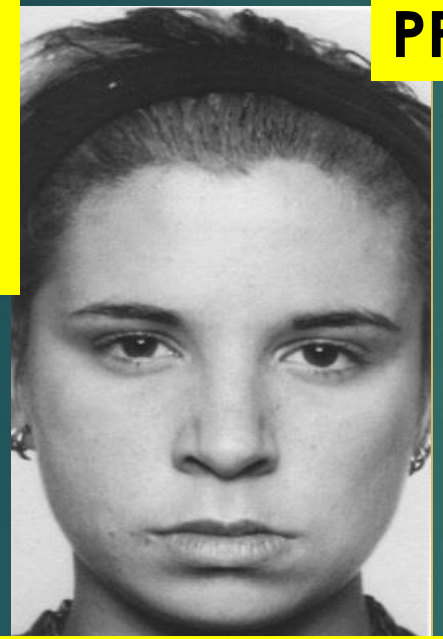
Figure 2.2 The Five Parenting Systems



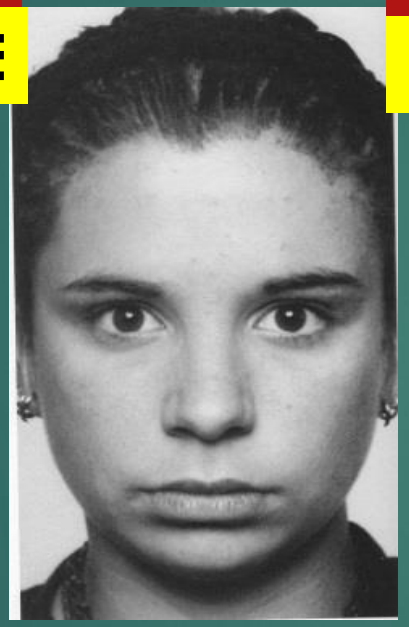
"PACING" THE CHILD'S INTERSTATE TRAVEL FROM CLOSED STATE TO OPEN STATE: SURPRISING THE MISTRUSTING BRAIN, REAWAKENING THE ATTACHMENT SYSTEM, RE-WRITING THE STORY OF SELF

PPE= Positive Prediction Error (DOPAMINE)

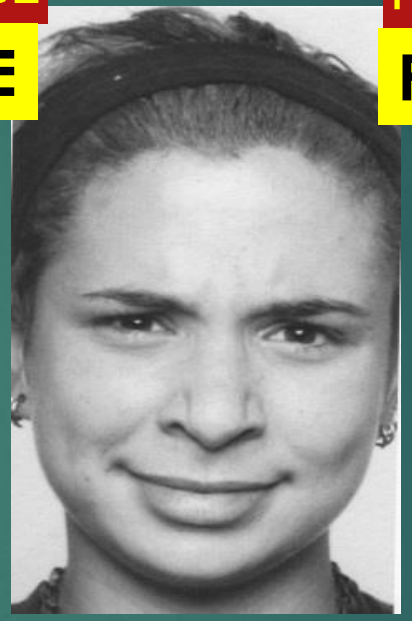
PACE PPE



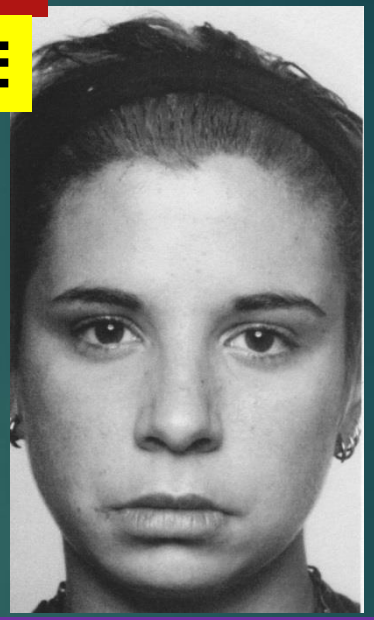
PACE PPE



PACE PPE



PACE PPE



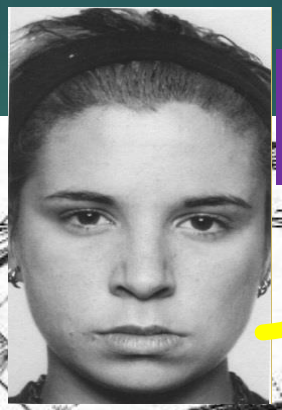
REAWAKENING THE BLOCKED POTENTIAL FOR THE KID TO SAFELY FEEL SAD AND RECOVER THE ABILITY TO SEEK COMFORT

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

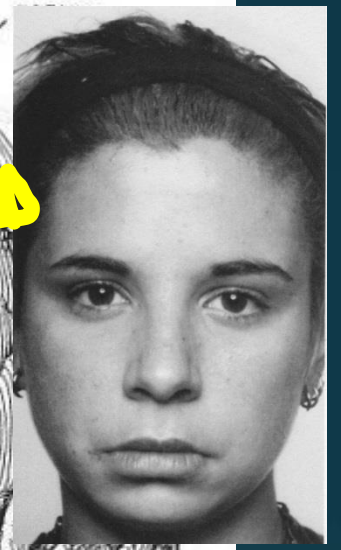
Safe Sadness: New Story of Brave Girl

SAFE SADNESS

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



INTERSTATE TRAVEL ENABLED BY PACE



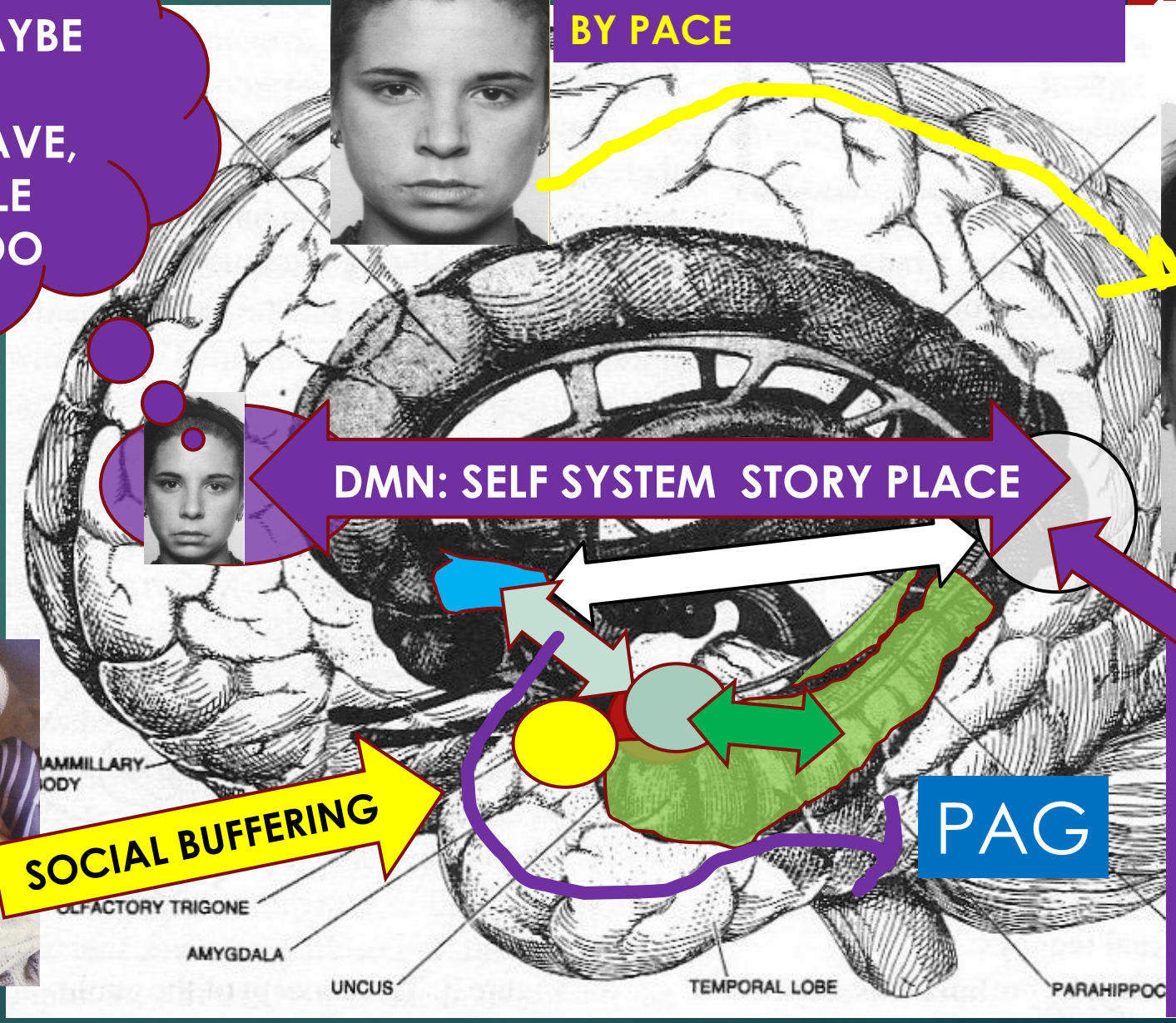
REAWAKENING THE CHILD'S BLOCKED POTENTIAL TO FEEL THE SEPARATION PAIN THAT TRIGGERS COMFORT-SEEKING, GIVING THE CAREGIVER AN OPPORTUNITY TO PROVIDE COMFORT

DMN: SELF SYSTEM STORY PLACE

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