



SIU School of Medicine Children's Medical
and Mental Health Resource Network
Presents:

**How to Support Executive Functioning in
Education when students have been
impacted by Trauma or the challenges of
Neurodiversity**

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Objectives

01

Explore the neurological mechanisms underlying protective patterns within attachment, relationship development, physical and psychological safety.

02

Increase knowledge about the power of connection and enhancing relationships as a protective factor to build resiliency.

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03

Learn new strategies to provide a framework to promote connection, emotional safety, nervous system regulation and deepen protective factors



Agenda

Explore Executive Functioning & Resiliency

Relationships, Rupture, Repair, Renew

Vulnerability vs Tolerance

PCEs and PCE Research

HOPE Framework

Bolstering Protective Factors

CHECK-IN

On scale of SLOTH
how are you today?



1



2



3



4



5



6



7



8



9

Connector

WHAT WAS YOUR
PERSONAL FAVORITE
GRADE IN SCHOOL & WHY?



WORDS TO REFLECT ON



Trauma is perhaps the most avoided, ignored, belittled, denied, misunderstood and unnoticed cause of human suffering.

Peter Levine



Trauma comes
back as a reaction,
not a memory.

@informed_healing

-Bessel van der Kolk

Executive functioning refers to a set of cognitive processes essential for planning, organizing, managing time, regulating emotions, and achieving goals. These skills are critical for academic and life success, particularly for young adults navigating school, work, and personal responsibilities.



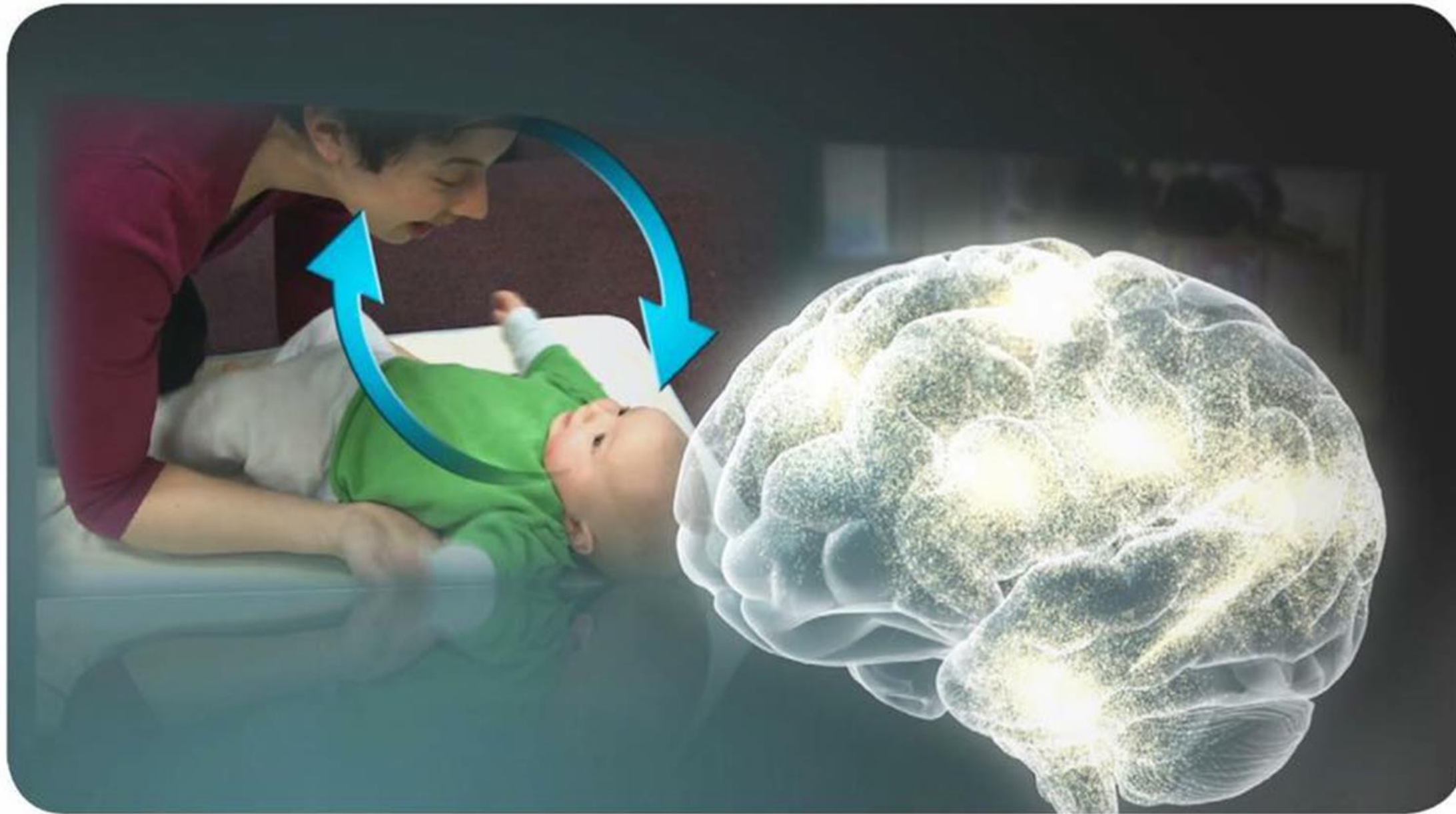
Experiences (Especially Adversity) Shape us Across the Lifespan



In Utero



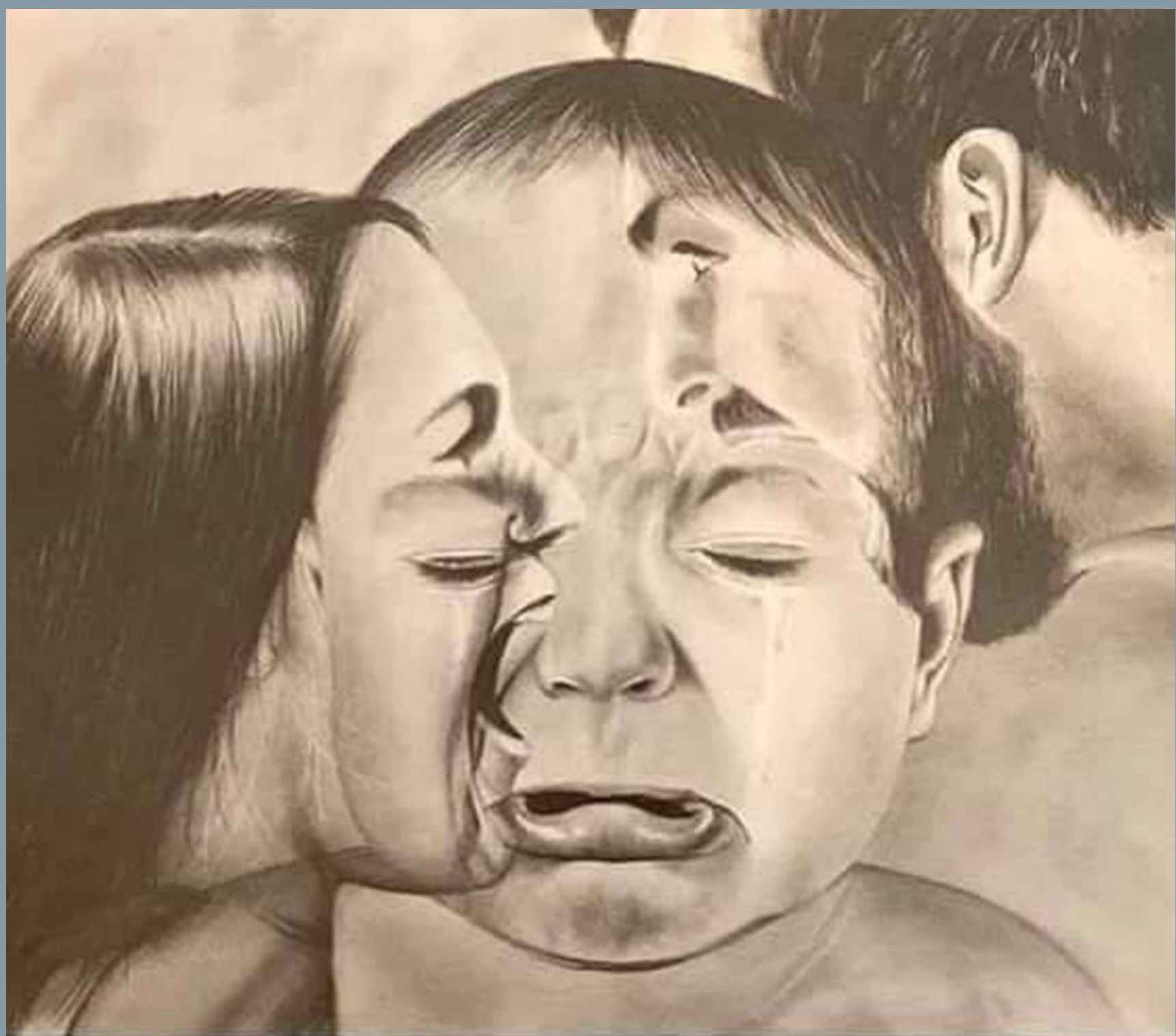
Infants: Serve and Return



Serve and return interactions shape brain architecture. When an infant or young child babbles, gestures, or cries, and an adult responds appropriately with eye contact, words, or a hug, neural connections are built and strengthened in the child's brain that support the development of communication and social skills.







Early Childhood: Experiences across all senses





Adolescence

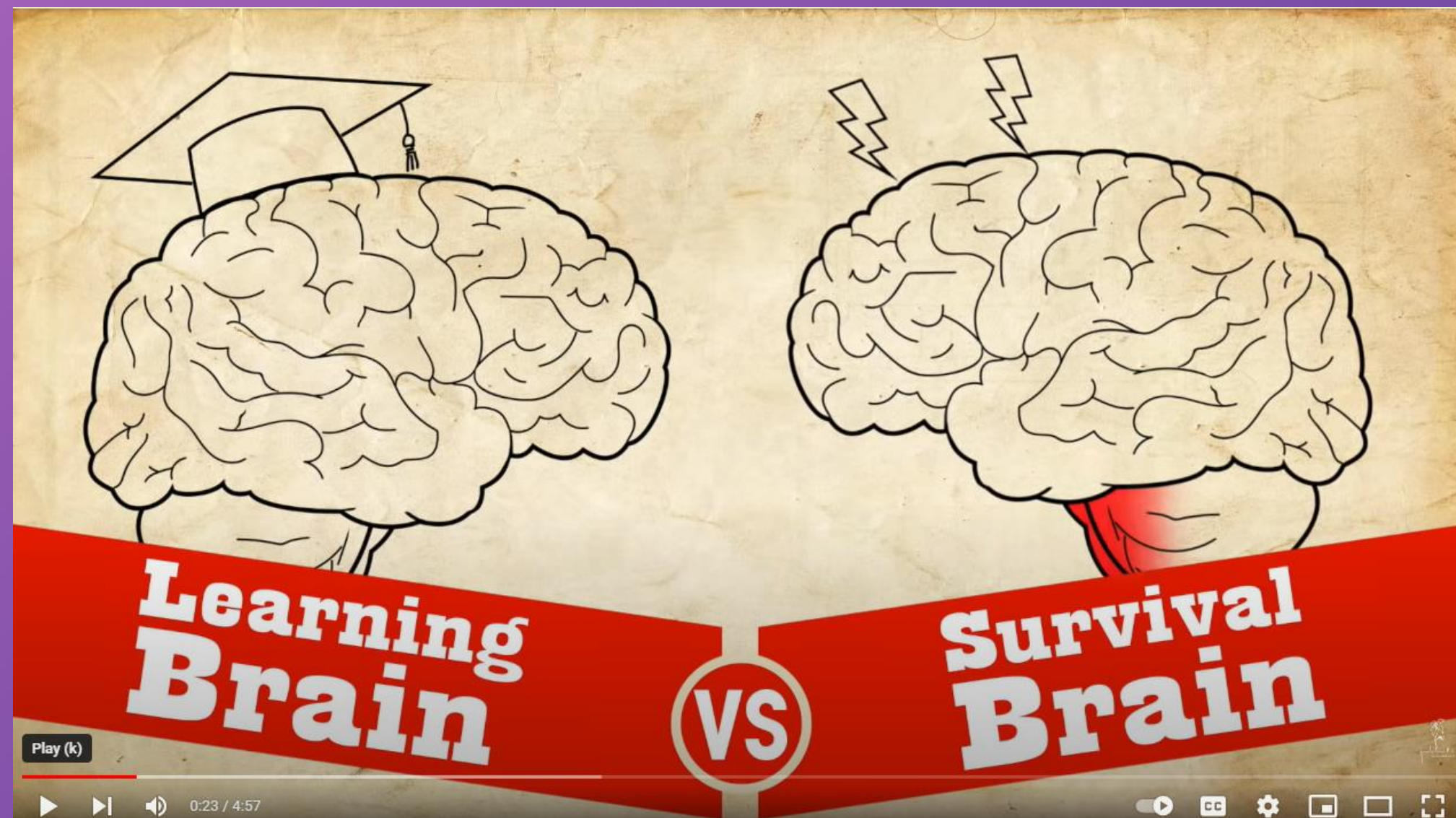


The Teen Brain: 7 things to know

1. The brain reaches its biggest size in early adolescence
2. The brain continues to mature even after it is done growing.
(maturity happens mid to late 20s)
3. The teen brain is ready to learn and adapt.
4. Many mental disorders may begin to appear during adolescence.
5. Teen brains may be more vulnerable to stress.
6. Teens need more sleep than children and adults.
7. The teen brain is resilient.

Brain Moods

Learning Brain vs Survival Brain



Mismatch in the Brain

- Teaching vs receptive portions of the brain
- Learning experience for a person who experienced trauma is vastly different.
- Social and Emotional functioning is hyper driven
- Misinterpretation can occur with non verbal and verbal cues
- Learning requires a state of attentive calm (rarely achieved by a person who experienced adversity)
- Problem solving skills are not easily accessed

Working Together

Amygdala

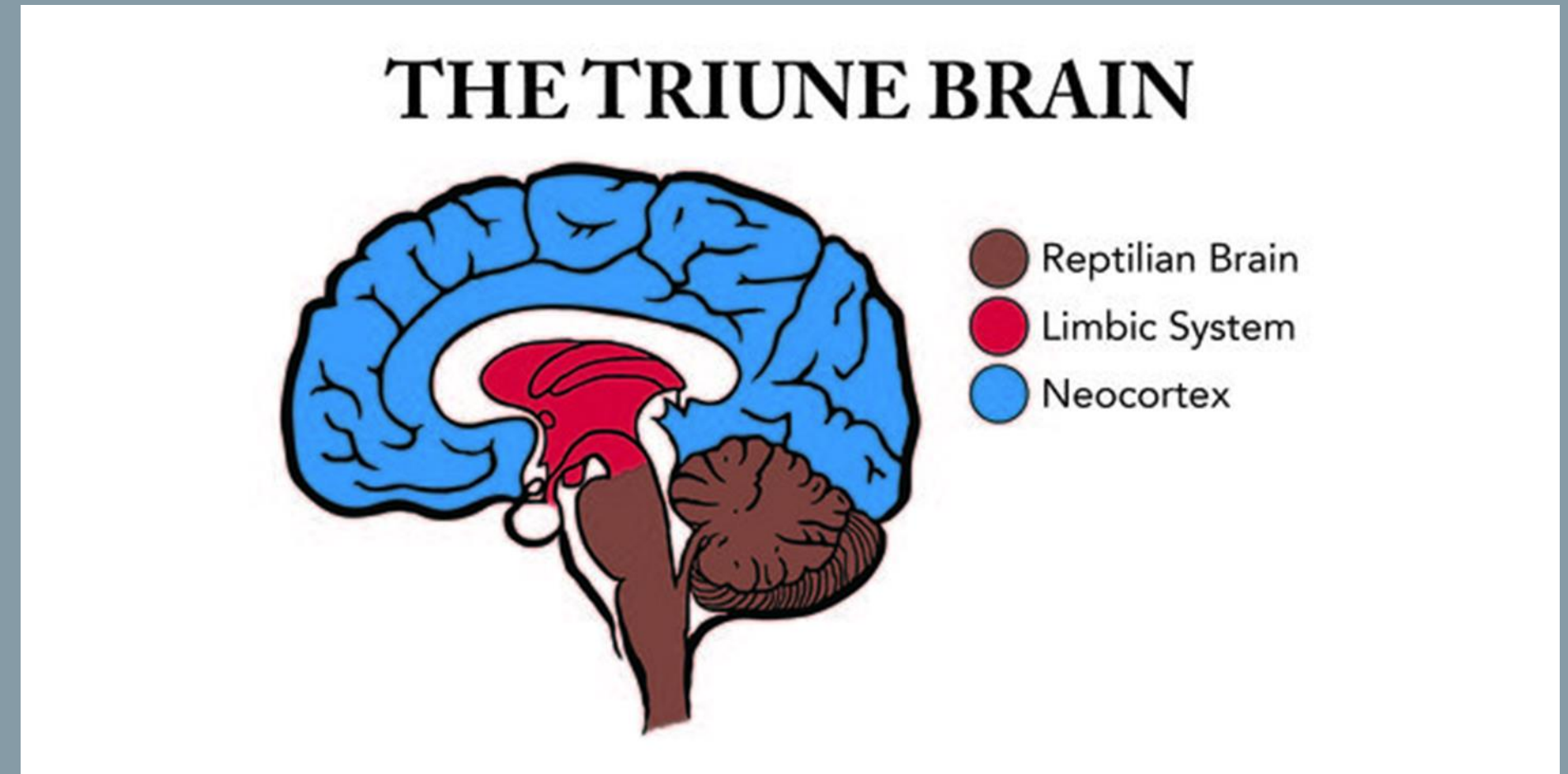
- Emotional Regulation and integrations
- Processes the emotional value of sensory stimuli
- Stores emotional memory
- Gages threat and sends out the troops

Hippocampus

- In between cortex and lower limbic area
- Memory
- Works in tandem with the stress hormones
- Can have functional issues when stressed

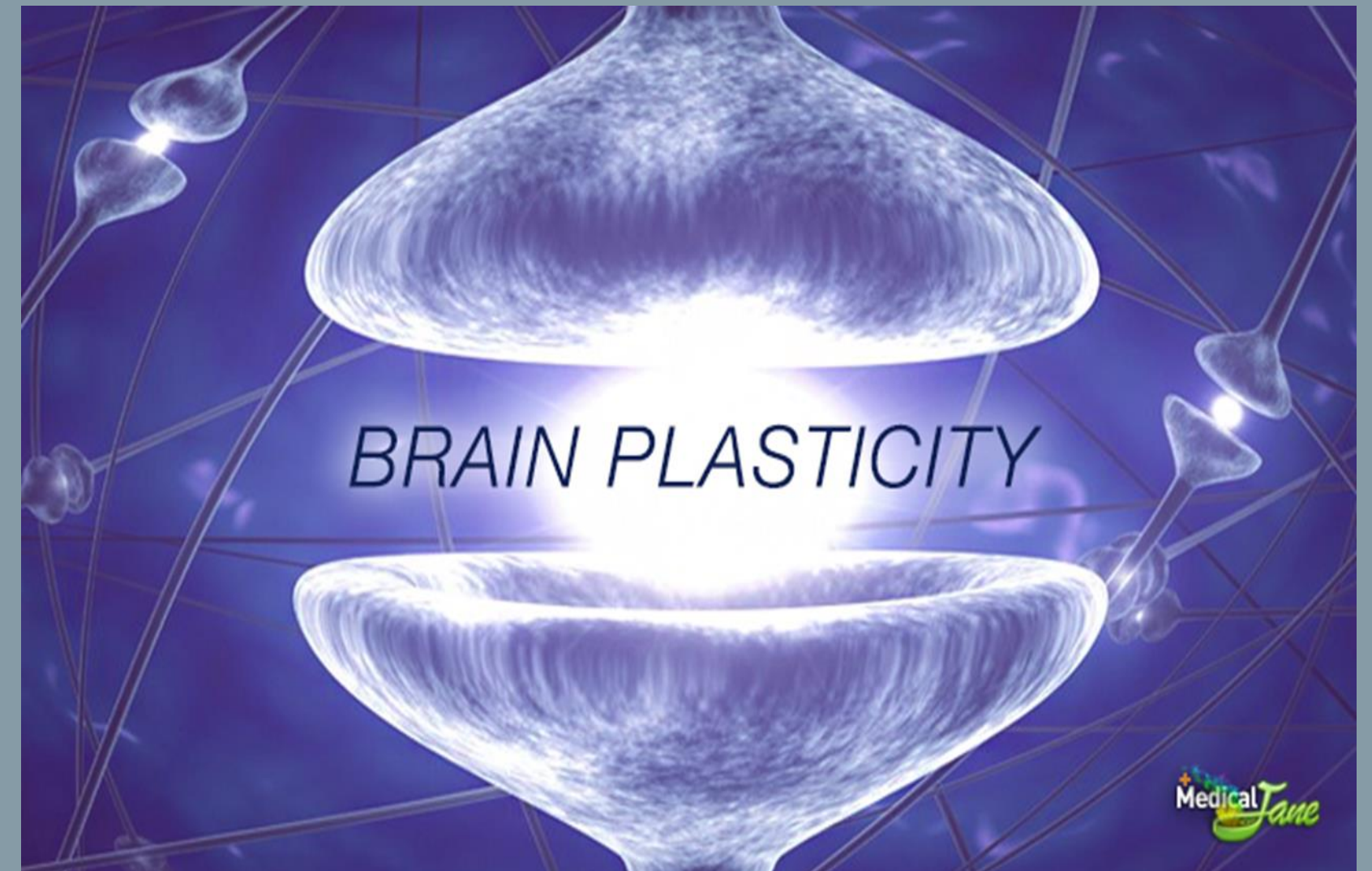
Neocortex Regions

- Complex areas begin to control and modulate the lower parts of the brain
- Less reactive, less impulsive and more thoughtful
- Reactivity of the brainstem areas can contribute to increase in behavior



Plasticity and Malleability of the Human Brain

- Changes in response to patterned repetitive activation
- Not all parts are equally plastic
- Cortex is most plastic
- Once a brain area is organized it becomes less responsive (3 years)



Children who grow up
feeling loved deeply
become adults who
are prewired to
love deeply.

Karen Salmansohn

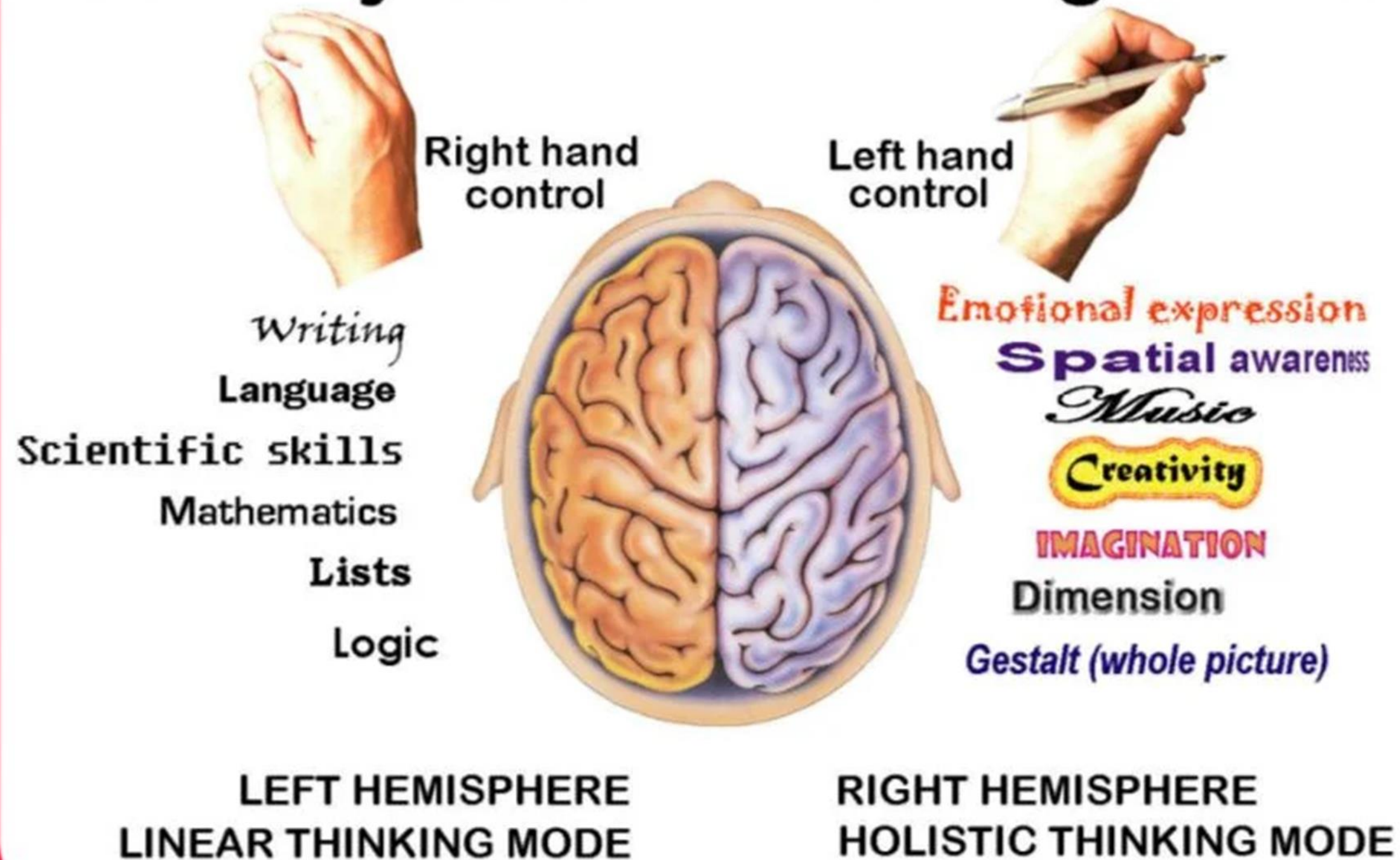


©NotSalmon.com

Neurodevelopment

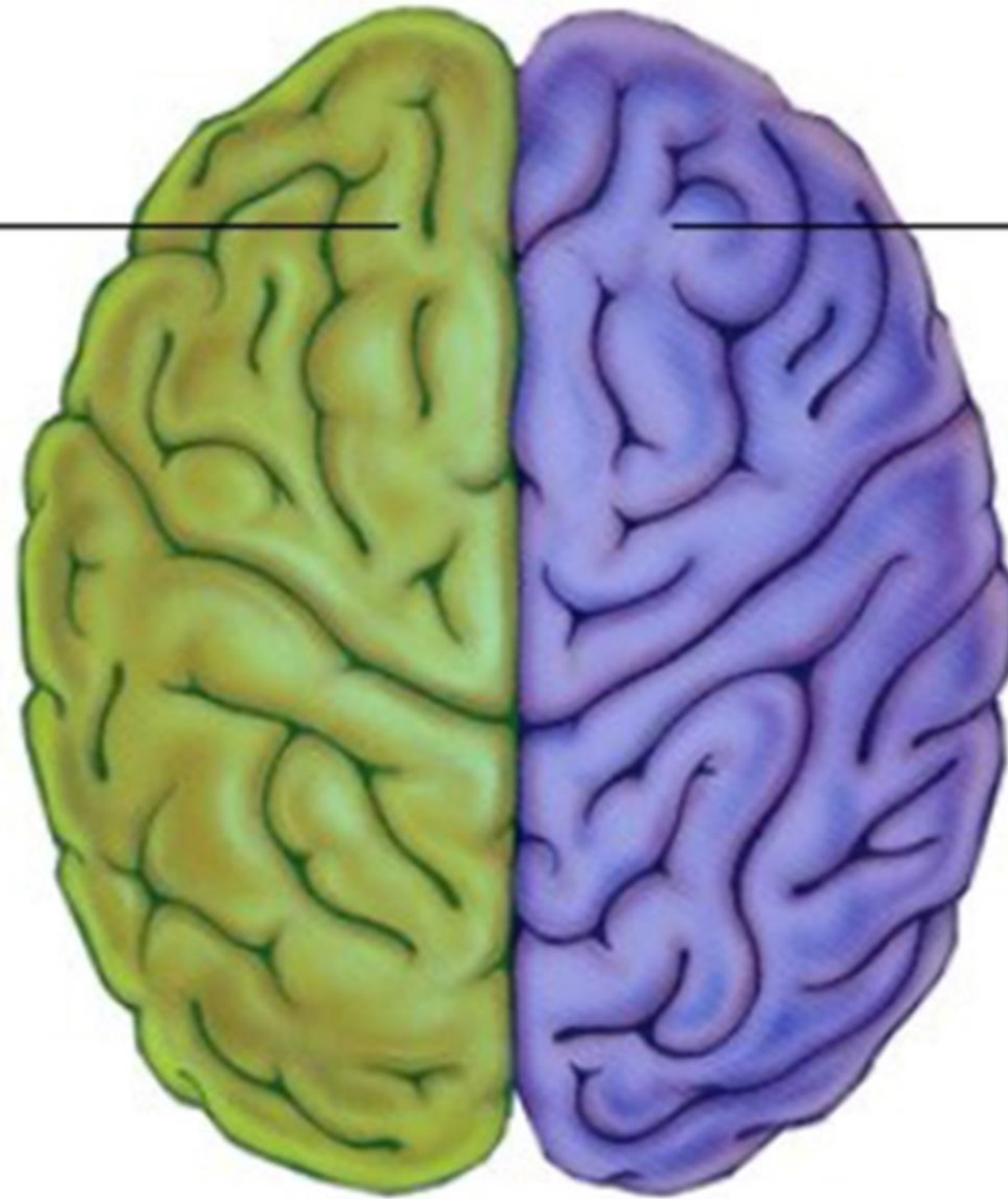
- Much of the brain is developed in utero
- The Brain is 90% of it's size by age 4
- Children exposed to consistent, predictable, nurturing and enriched experiences will develop capability for a productive healthy life
- Experience can change the mature brain but experience during the critical periods of early childhood organizes the brain
- Trauma during infancy and childhood has the potential effect of influencing the permanent organization and all future functional capabilities of the child.

The Way Your Brain Is Organised





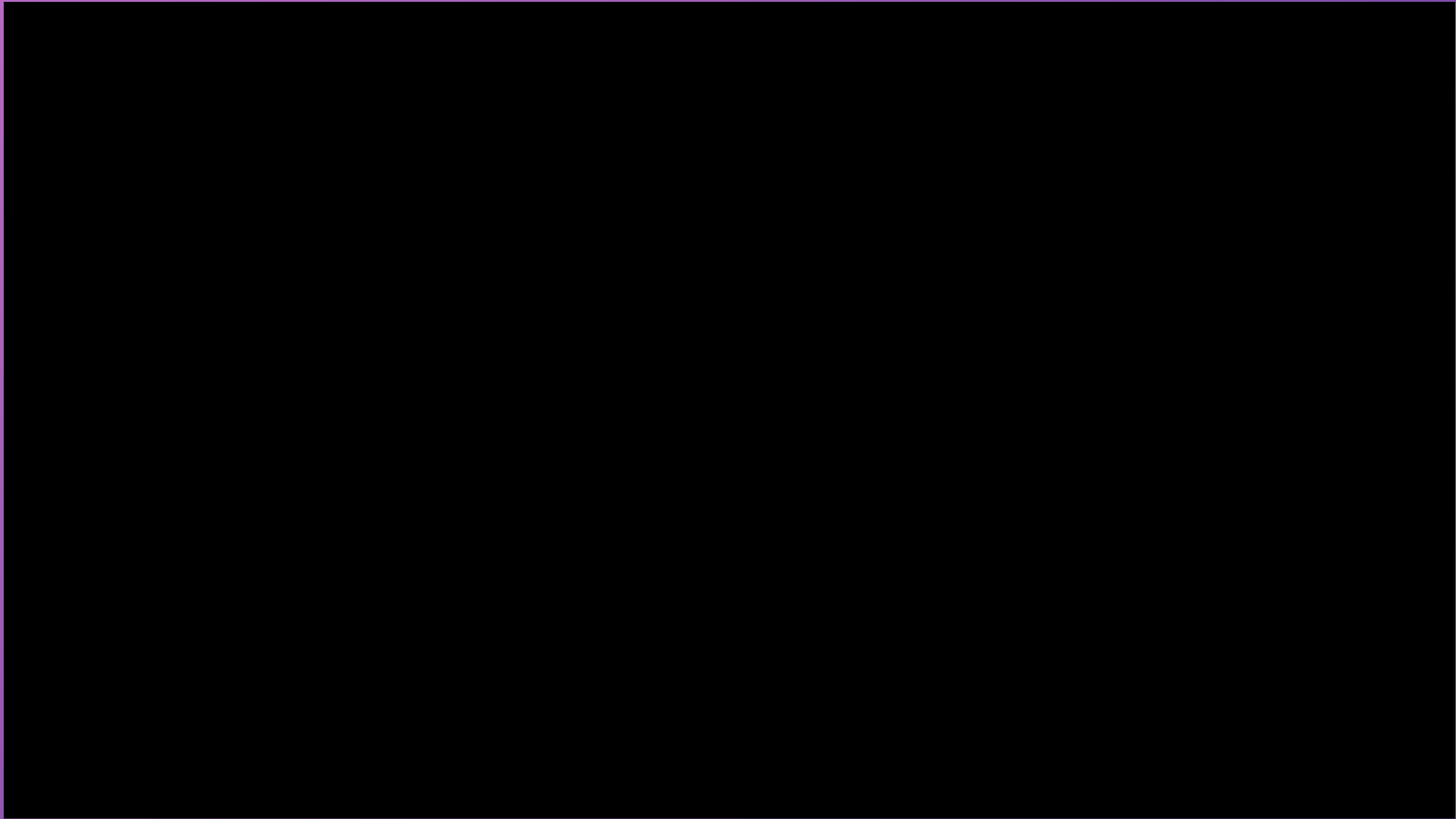
analytical
logical
precise
repetitive
organized
details
scientific
detached
literal
sequential



creative
imaginative
general
intuitive
conceptual
big picture
heuristic
empathetic
figurative
irregular

**Watch the Human Brain Come to Life in This
Stunning Piece of Art
Drawn and etched with algorithms,
Greg Dunn's masterpiece is unique in more ways
than one**

By Leslie Nemo on June 21, 2017



To access the brain art webpage:



Relationships are the Catalyst for Developing Resiliency





A Mindful Moment

A loving Kindness Meditation



A Mindful Moment



A loving Kindness Meditation

The Space Between

You know you
went off like a
crow devil oom





The Space Between

Resiliency is
about
widening the
Space
Between



Creating
more time
between the
stimulus and
response

Creating more of
an intentional
behavior and less
of a reactionary
response



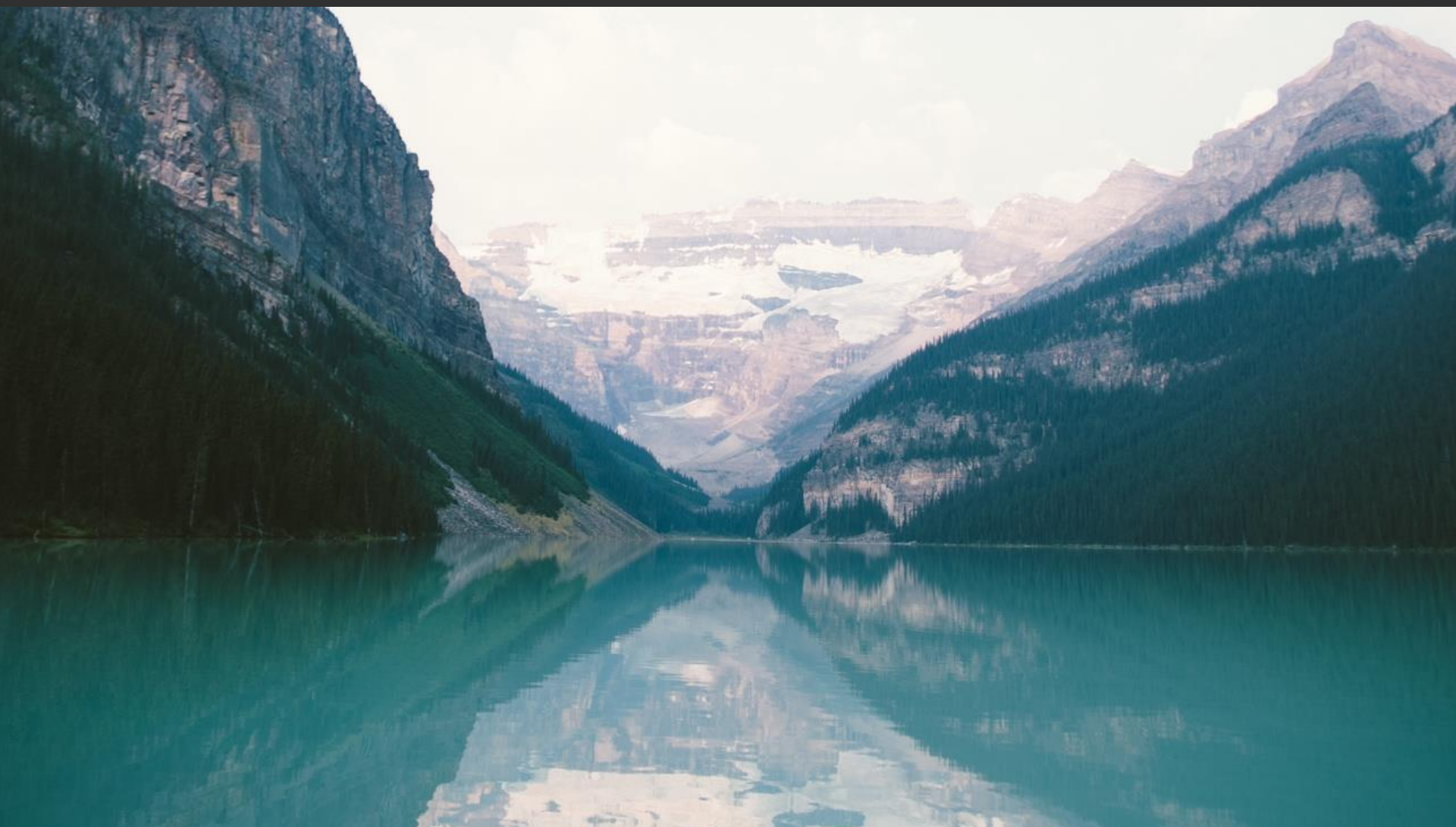
Priming the Brain
for Connection
and less of
Protection

"Our brains are wired for connection, but trauma rewires them for protection. That's why healthy relationships are difficult for wounded people."

- RYAN NORTH -

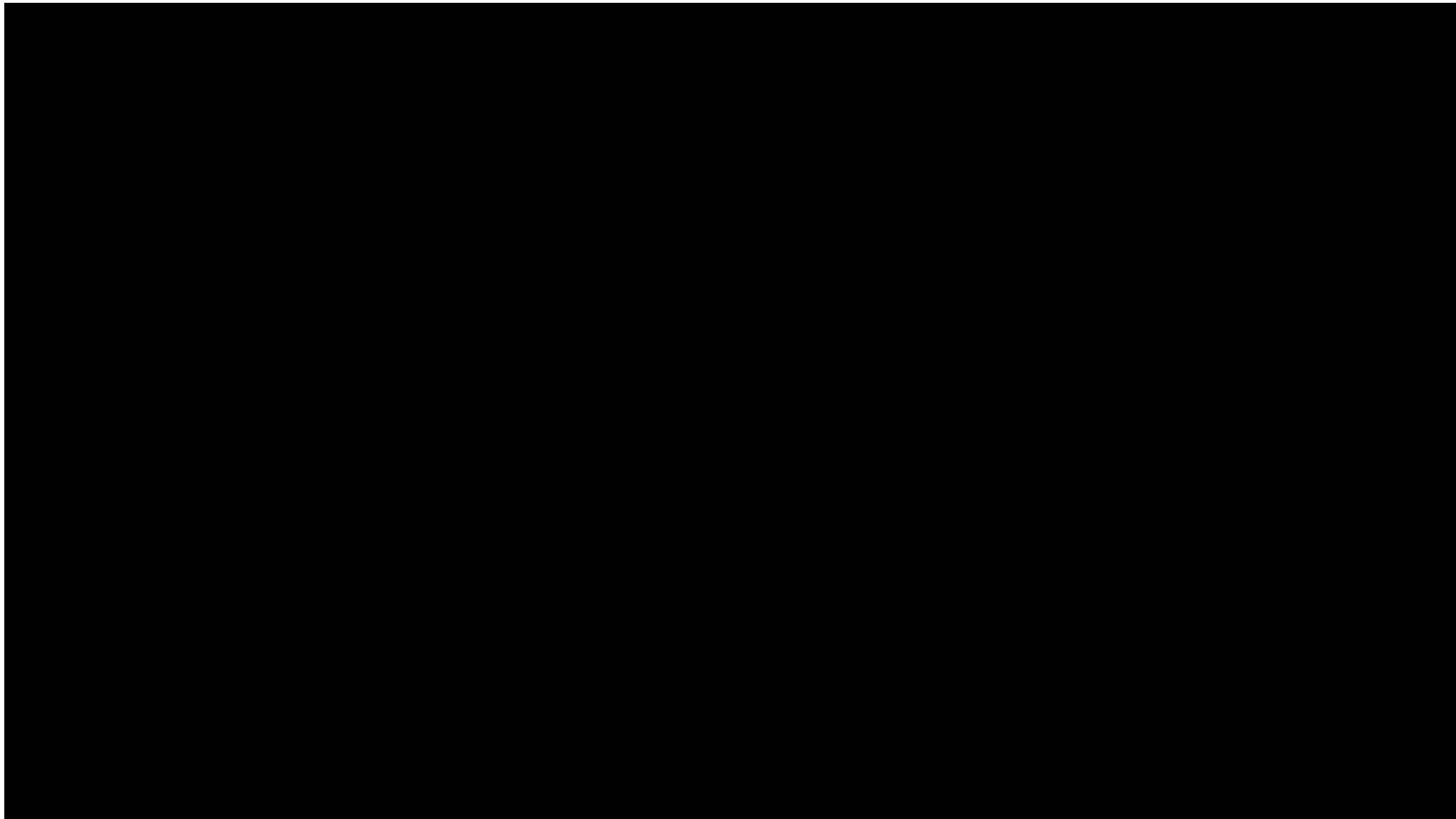


Bolstering Resilience in others



Starts with me!
It is not about me
but it starts with
me showing
compassion

Missed Opportunity



Fire can warm or consume,
water can quench or drown,
wind can caress or cut.



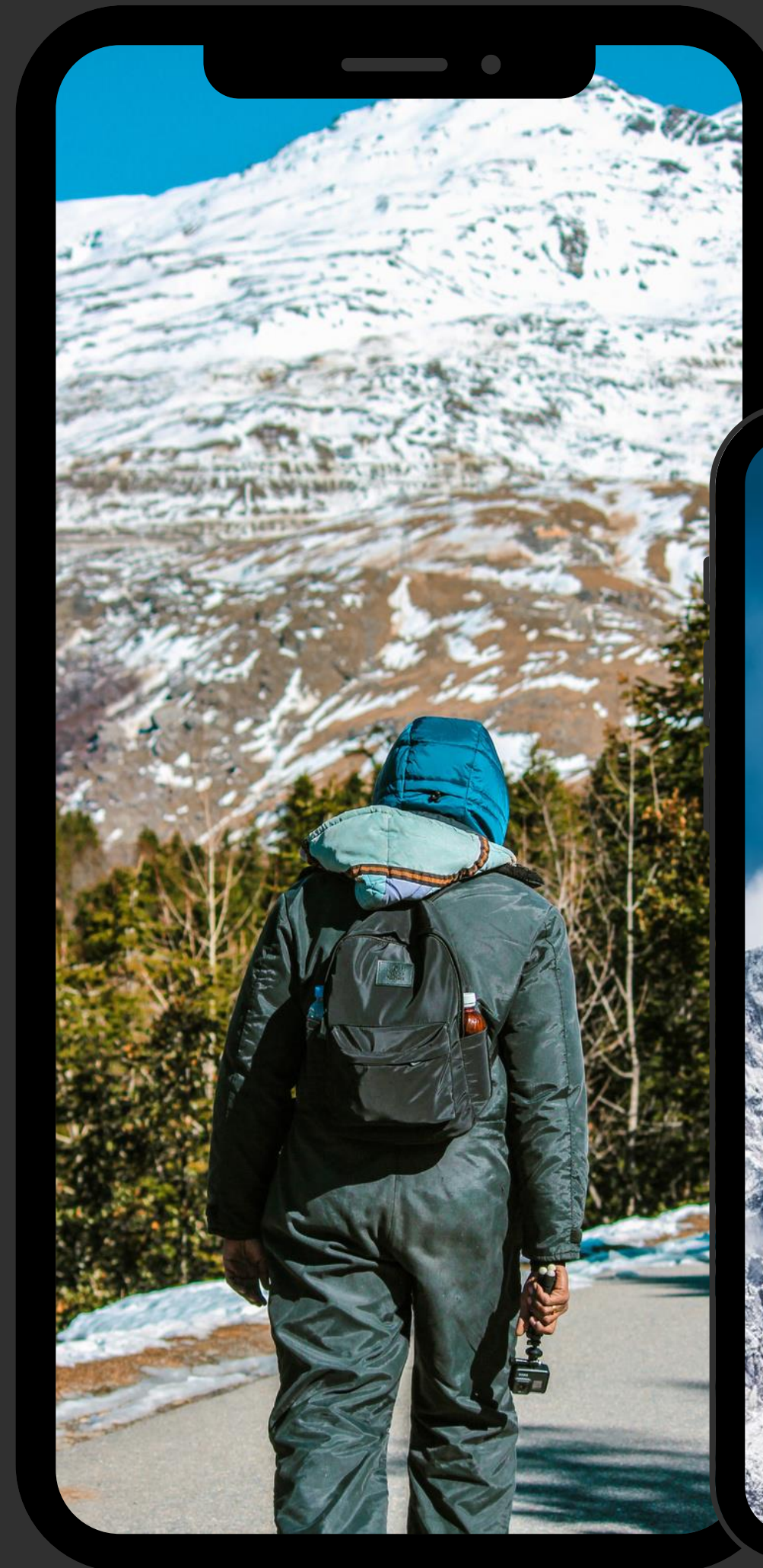
And so it is with human relationships:

we can both create and destroy,
nurture and terrorize,
traumatize and heal each other.

- Bruce Perry

myrelationshipcenter.org

The Positive Childhood Experiences Study



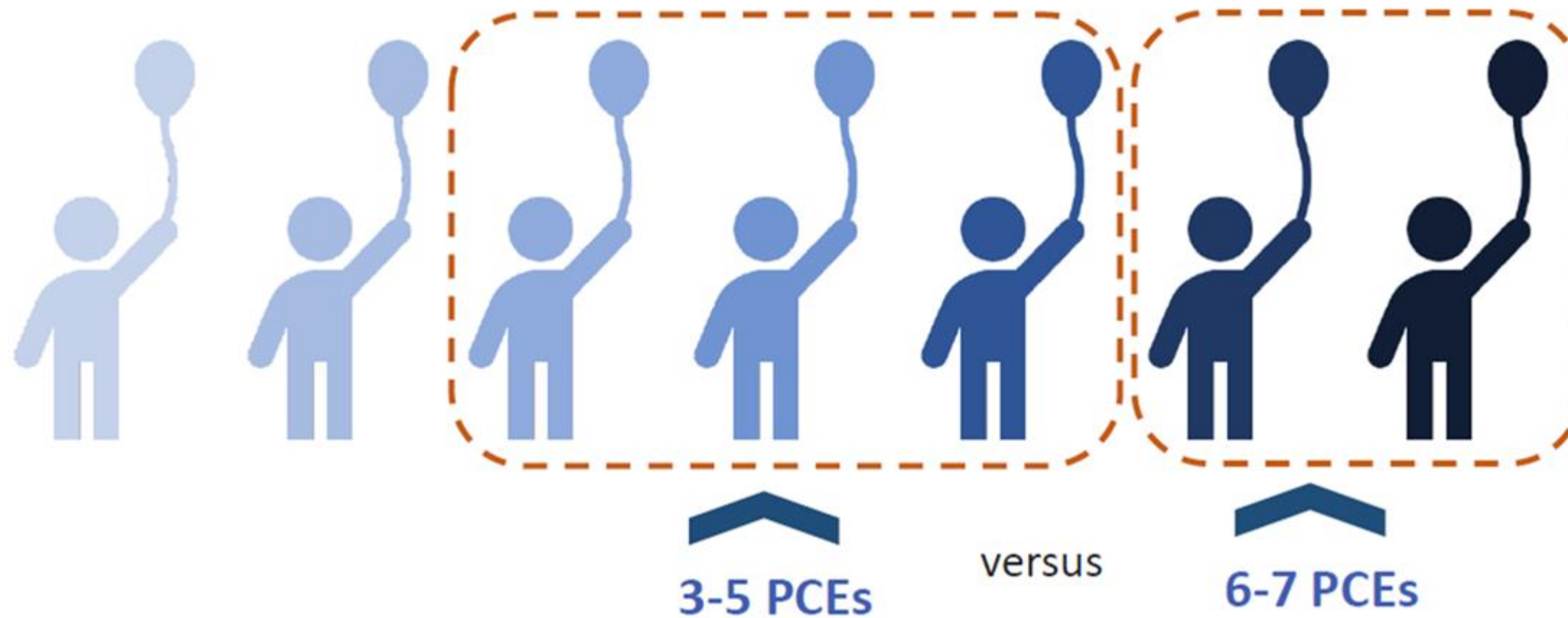
The PCE study included a psychometric analysis that included 7 experiences linked to PCE:

1. Able to talk with my family about my feelings.
2. Felt that my family stood by me during difficult times.
3. Enjoyed participating in community traditions.
4. Felt a sense of belonging in high school.
5. Felt supported by friends.
6. Had at least two non-parent adults who took a genuine interest in me.
7. Felt safe and protected by an adult in my home.

Positive Childhood Experiences (PCEs) Protect Adult Mental Health



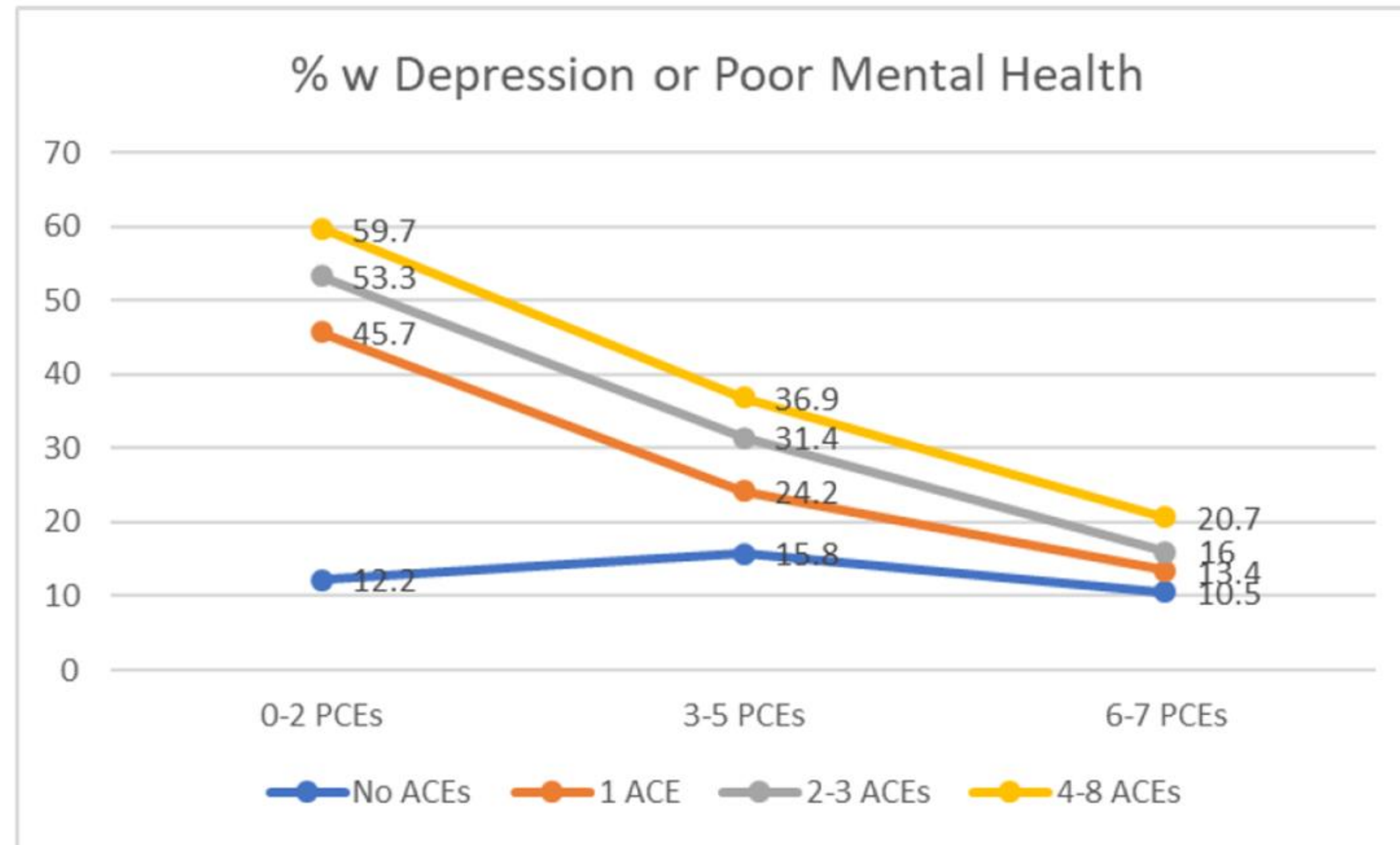
6-7 vs 3-5 PCEs: Adults with 6-7 PCEs have **50% lower odds of** adult depression or poor mental health compared to those with 3-5 PCEs. 25% v. 12.6%, OR 0.50; 95% CI 0.36-0.69. 1.98x higher rate for 3-5 vs. 6-7 PCEs.



Bethell C, Jones J, Gombojav N, Linkenbach J, Sege R. Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations Across Adverse Childhood Experiences Levels. JAMA Pediatr. 2019:e193007.

HEALTHY OUTCOMES
from
POSITIVE EXPERIENCES

Positive Childhood Experiences Mitigate ACEs Effects



Bethell C, Jones J, Gombojav N, Linkenbach J, Sege R. Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations Across Adverse Childhood Experiences Levels. JAMA Pediatr. 2019:e193007.

HOPE: Healthy Outcomes from Positive Experiences

1. Promoting Relationships- initial attachment will form the template for all future relationships, peer relationships and romantic relationships
2. Environment- safe, stable, equitable with safe places to live, learn and play. Some examples include a playground, nature, schools with positive environment and creative spaces that kids can thrive.
3. Engagement- a sense of belonging; a sense of mattering to other people and the community (doing chores, having a job, responsibility).
4. The opportunity to develop social emotional intelligence- playing with peers, working out arguments with rules and self-monitoring, winning some and losing some (Udesky, 2020)

Resiliency Building Experiences

Buffering Relationships

Feels Loved by Parent(s) or Primary Caregiver
Supportive Family Relationships
Supportive Community Relationships
Parent(s) or Primary Caregiver Enjoy Playing with Child
Relatives Provide Support When Sad or Worried
Caring Neighbors or Family Friends
Support from Teacher, Coach, Youth Leader, or Minister



Hope and Resilience

Family Cares about Child's School Work and Performance
Family, Neighbors, and Friends Talk About Making Lives Better
Rules, Structure, and Expectations in Household
Someone Trusted to Talk to When Feeling Bad
Adults Who Notice Child's Strengths and Accomplishments
Sense of Independence
Positive Outlook on Life

Positive Community Environments

Available, Affordable Quality Housing
Lack of Discrimination
Clean and Safe Physical Environment
Access to Educational Opportunities
High Sense of Collective Political and Social Efficacy



Lots of Opportunity and Economic Mobility
Quality Transportation Services or System
Cohesive Social Networks and Trust
Access to Healthy Products and Foods
Employment Opportunities

Physical Environment

Economic Environment

Social-Cultural Environment

RELATIONSHIPS

Safe and Stable

Relationships create
secure attachment
patterns







"If we provide the appropriate amount of co-regulation
that these kids need, we are not hindering them...
We are building the lowest parts of their brains
so that their brains can keep developing."

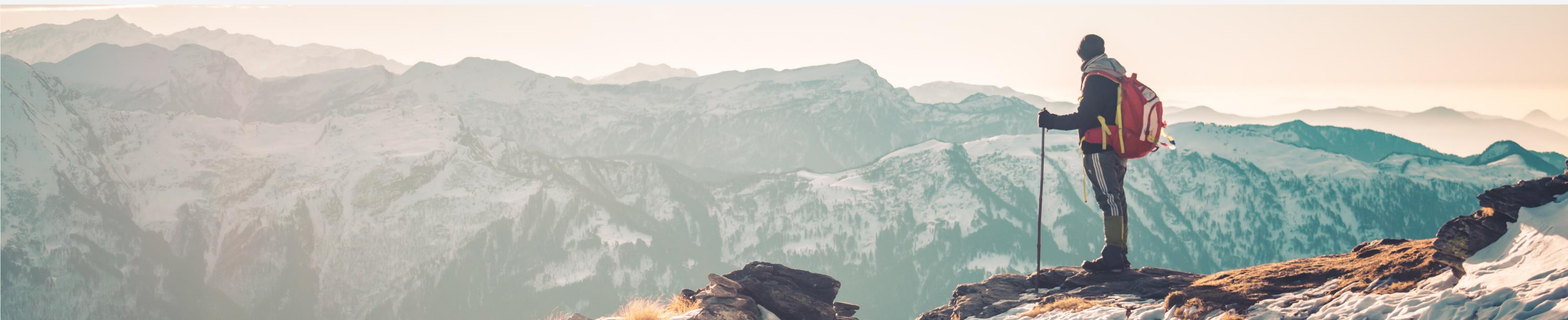
- Robyn Gobbel -

WORDS TO REFLECT ON



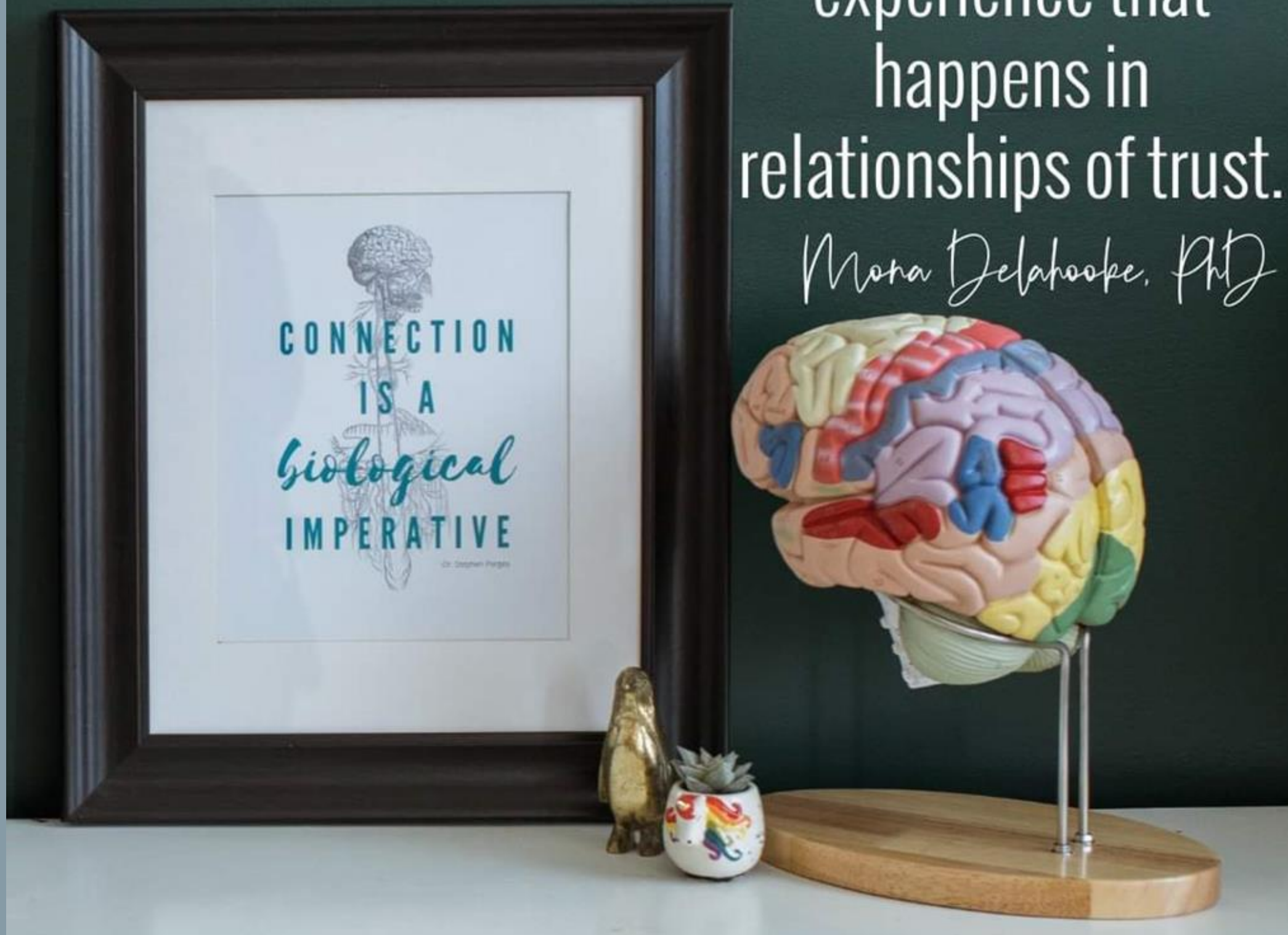
“A confident well-regulated adult can take a child out of a fire and have less trauma than an anxious dysregulated adult conveying fear to a child who falls off his bike”

Bruce Perry, MD



Human beings don't engage in challenging
“behaviors” when they feel safe. You can't teach
humans to feel safe. It's an embodied
experience that
happens in
relationships of trust.

Mona Delahooke, PhD



THESE CUPS REPRESENT A STUDENT'S CAPACITY FOR STRESS OR DIFFICULTIES THEY EXPERIENCE AT SCHOOL.

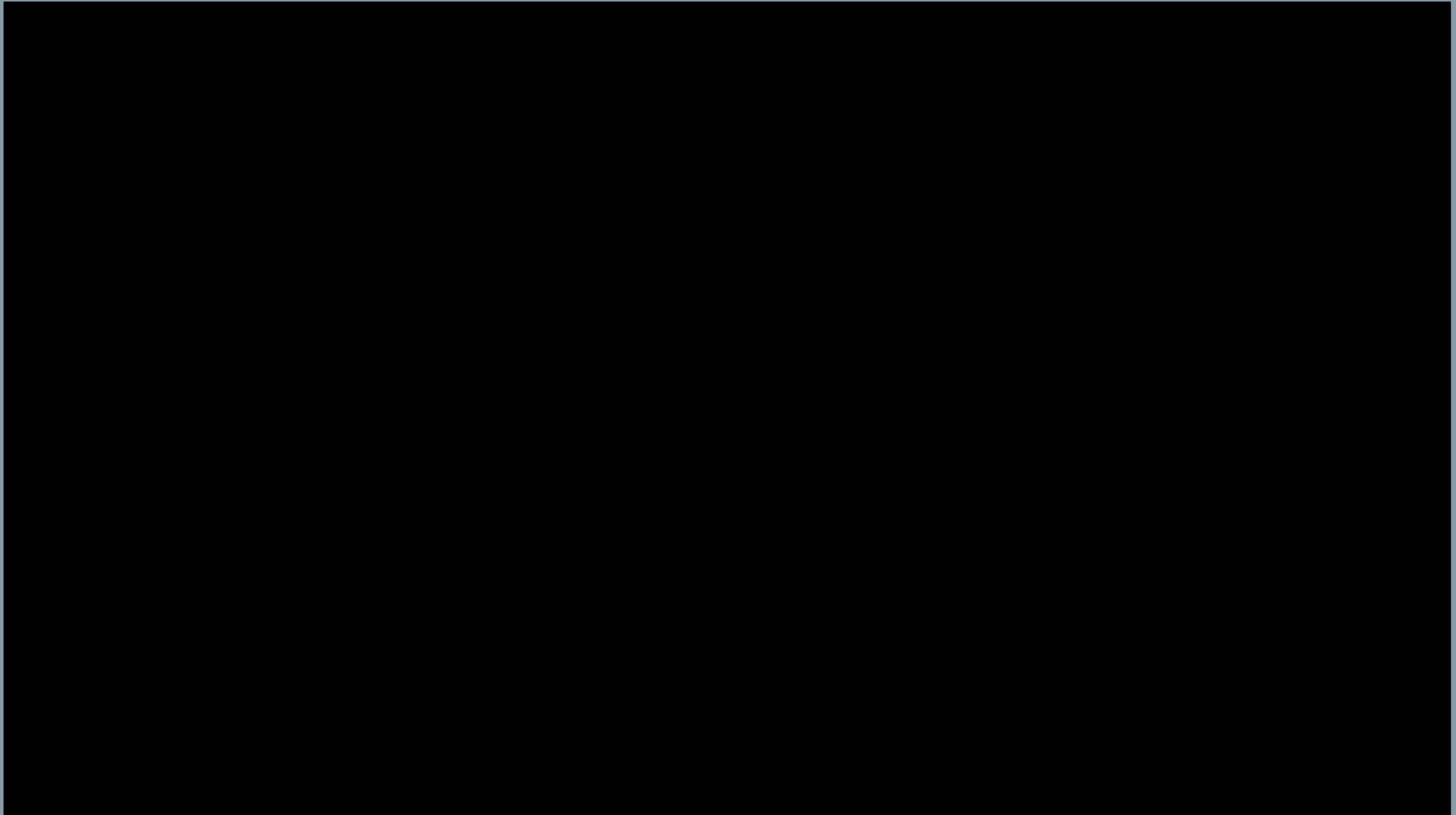


Student A comes to school with her cup already full. At home, she may experience hunger, violence, or abuse. Small difficulties or challenges at school may send her over the edge.



Student B comes to school with her cup almost empty. At home, she experiences support, a loving family, and security. She can handle difficulties and challenges at school without being sent over the edge.

Teachers Show Appreciation



Students Show Appreciation



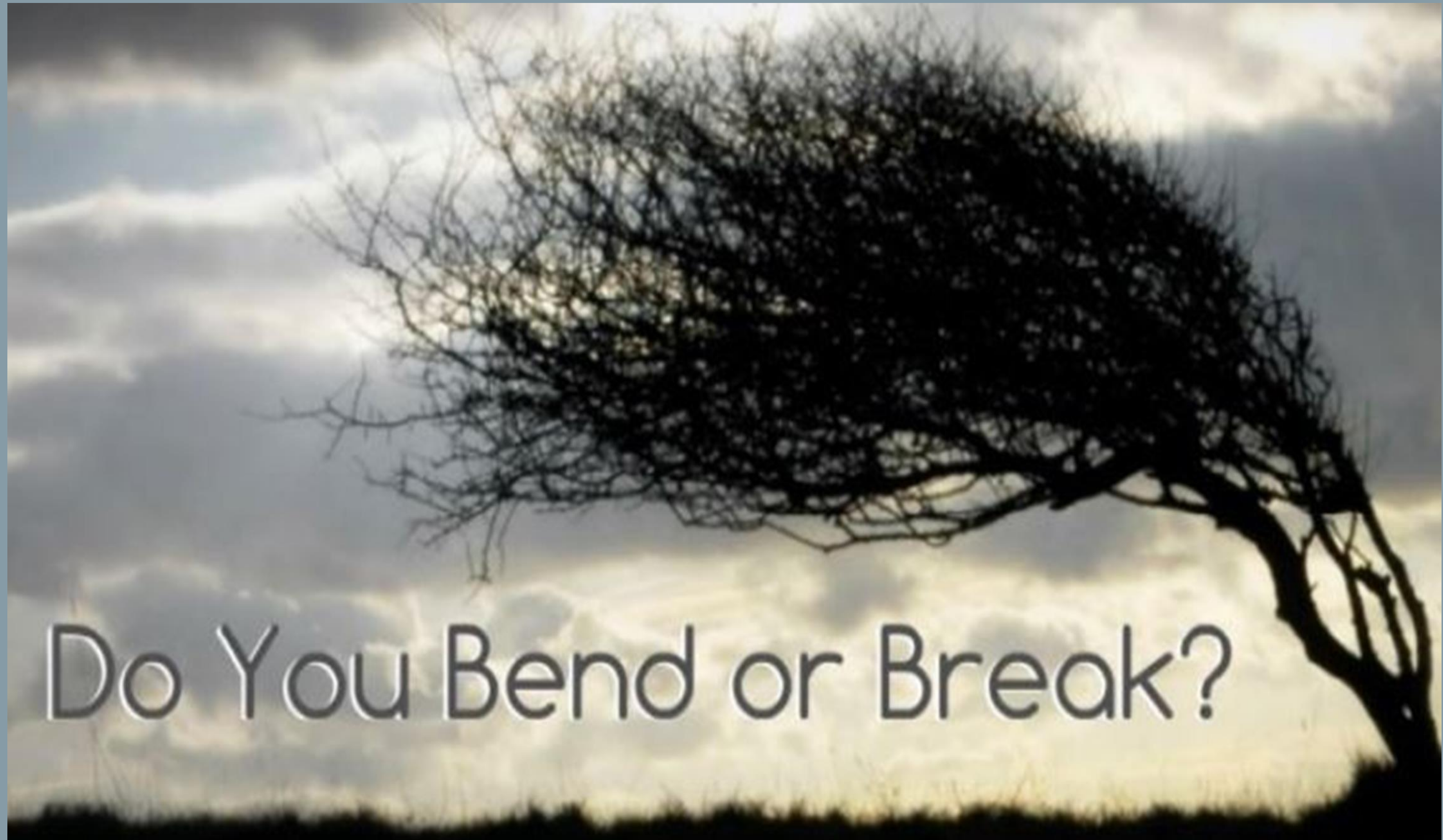


——— ” ———

When a child walks
in the room, your
child or anybody
else's child, do your
eyes light up?
That's what they're
looking for.

——— ” ———

TONI MORRISON
AUTHOR



Do You Bend or Break?

Key Strategies to Bolster Executive Functioning

1. Establish Routines and Structure

- - Create consistent daily routines for better predictability.
- - Use visual schedules, checklists, and planners.
- - Maintain an organized, clutter-free workspace.

Key Strategies to Bolster Executive Functioning

2. Manage Time and Tasks Effectively

- Use digital or paper planners and calendars.
- Break down large tasks into manageable steps.
- Prioritize based on urgency and importance.

Key Strategies to Bolster Executive Functioning

3. Practice Cognitive Flexibility

- Engage in open-skill sports and problem-solving games.
- Learn new skills to enhance adaptability.

Key Strategies to Bolster Executive Functioning

4. Mindfulness and Emotional Self-Regulation

- Practice mindfulness and meditation.
- Develop emotional regulation strategies.
- Cultivate self-awareness of thoughts and behaviors.

Key Strategies to Bolster Executive Functioning

5. Seek Support and Utilize Resources

- Consult professionals (therapists, coaches).
- Access online tools and community support.
- Engage family and friends for accountability.

Key Strategies to Bolster Executive Functioning

Academic Performance Enhancement Techniques

- Forecasting and long-term planning.
- Homework routines and designated workspaces.
- Strategies to overcome procrastination.
- Setting SMART goals.
- Effective note-taking and test preparation.
- Analyzing test results and addressing test anxiety.
- Building positive academic habits.

“The Greatest casualty of trauma
and oppression is vulnerability”

Brene Brown

Vulnerability
without support-
overwhelms the
system

Vulnerability with
support- creates a
tolerance and growth in
the space between

3 Sources of Resilience

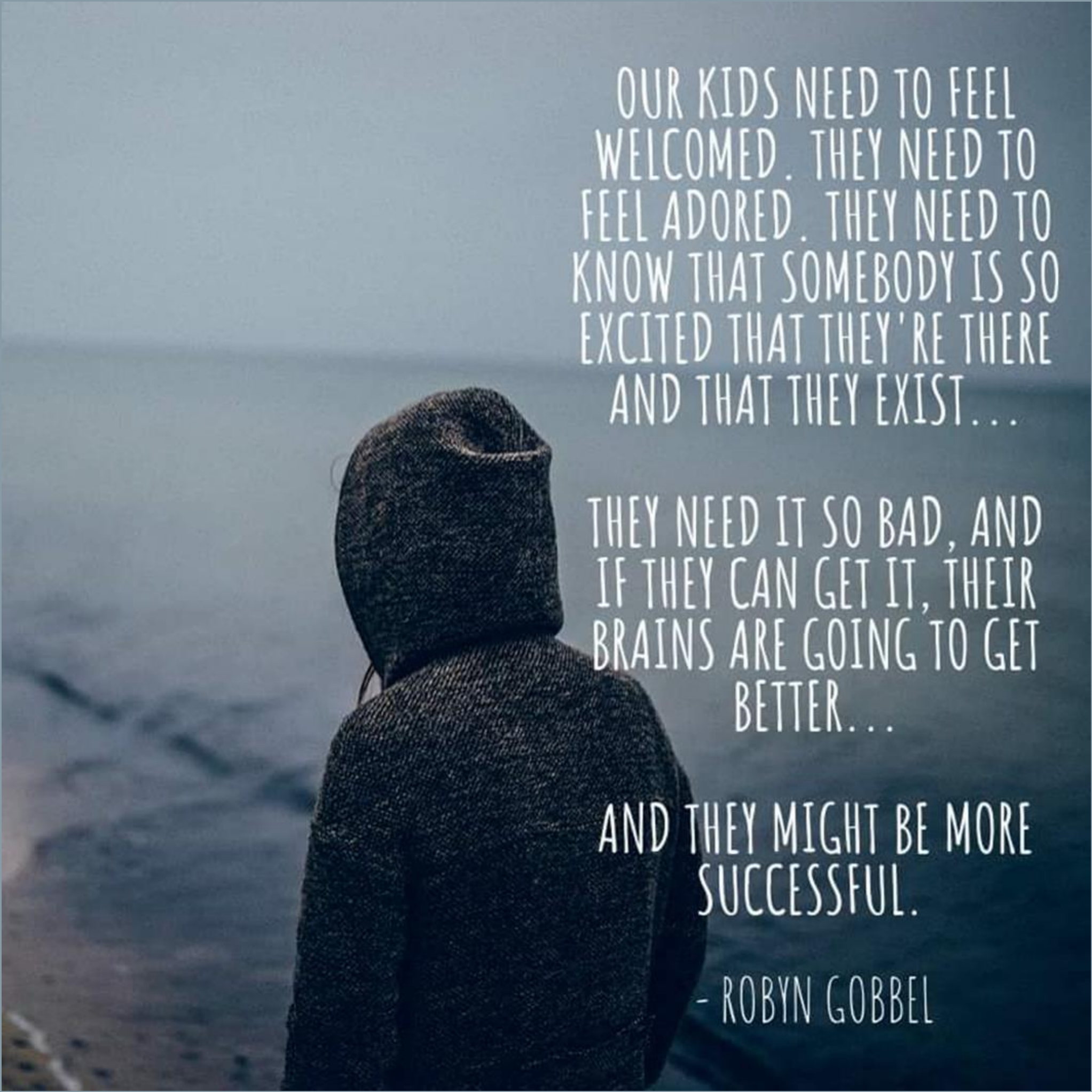
I HAVE
(external
supports)

I AM...
(personal strengths)

I CAN...
(social and
interpersonal
skills)

**“Nine times out of
ten, the **story** behind
the misbehavior
won't make you
angry; it will break
your **heart.**”**

~Annette Breaux

A person wearing a dark, textured hoodie is seen from behind, looking out over a body of water under a hazy sky. The person's head is slightly tilted upwards. The background is a soft-focus view of water and a distant shoreline.

OUR KIDS NEED TO FEEL
WELCOMED. THEY NEED TO
FEEL ADORED. THEY NEED TO
KNOW THAT SOMEBODY IS SO
EXCITED THAT THEY'RE THERE
AND THAT THEY EXIST...

THEY NEED IT SO BAD, AND
IF THEY CAN GET IT, THEIR
BRAINS ARE GOING TO GET
BETTER...

AND THEY MIGHT BE MORE
SUCCESSFUL.

- ROBYN GOBBEL

Turning to One Another By: Margaret Wheatley

There is no power greater than a community discovering what it cares about

Ask “What is possible?” not “What’s wrong?” Keep asking.

Notice what you care about.

Assume that many others share your dreams.

Be brave enough to start a conversation that matters.

Talk to people you know.

Talk to people you don’t know.

Talk to people you never talk to.

Be intrigued by the difference you hear.

Expect to be surprised.

Treasure curiosity more than certainty.

Invite in everybody who cares to work on what’s possible.

Acknowledge that everyone is an expert about something.

Know that creative solutions come from new connections.

Remember, you don’t fear people whose story you know.

Real listening always brings people closer together.

Trust that meaningful conversations can change your world.

Rely on human goodness. Stay together.