ACES
Stress
Development

breathe

Focus on the brain



Community

Shalom and Namaste

Cultivating Beloved Quaker Community

An exploration through the lens of the science of stress and safety

> Jeanne Elberfeld jelberfeld@gmail.com

First, let's breathe & ground



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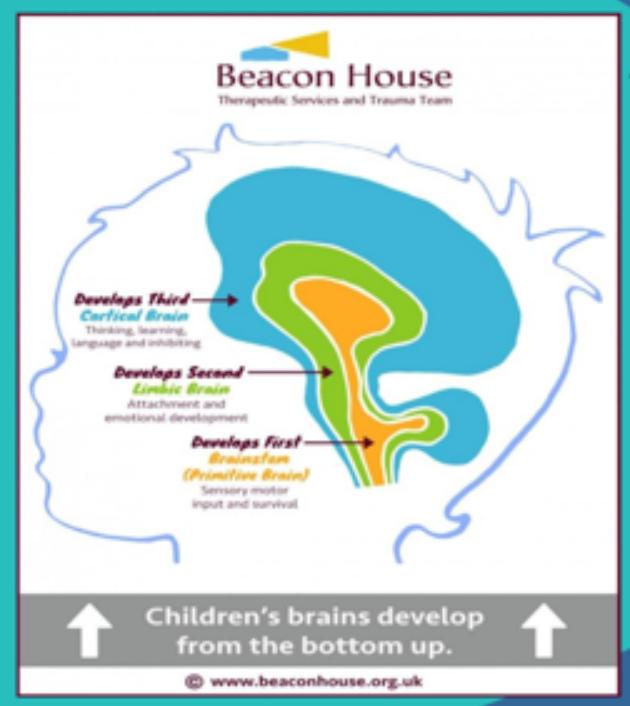
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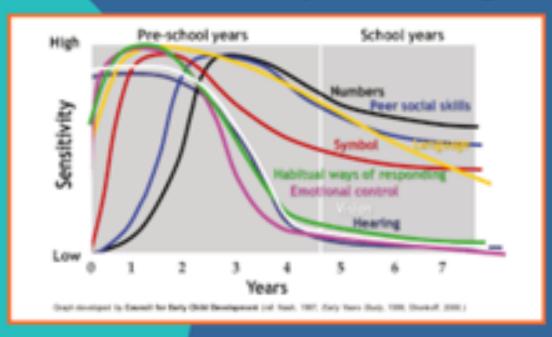
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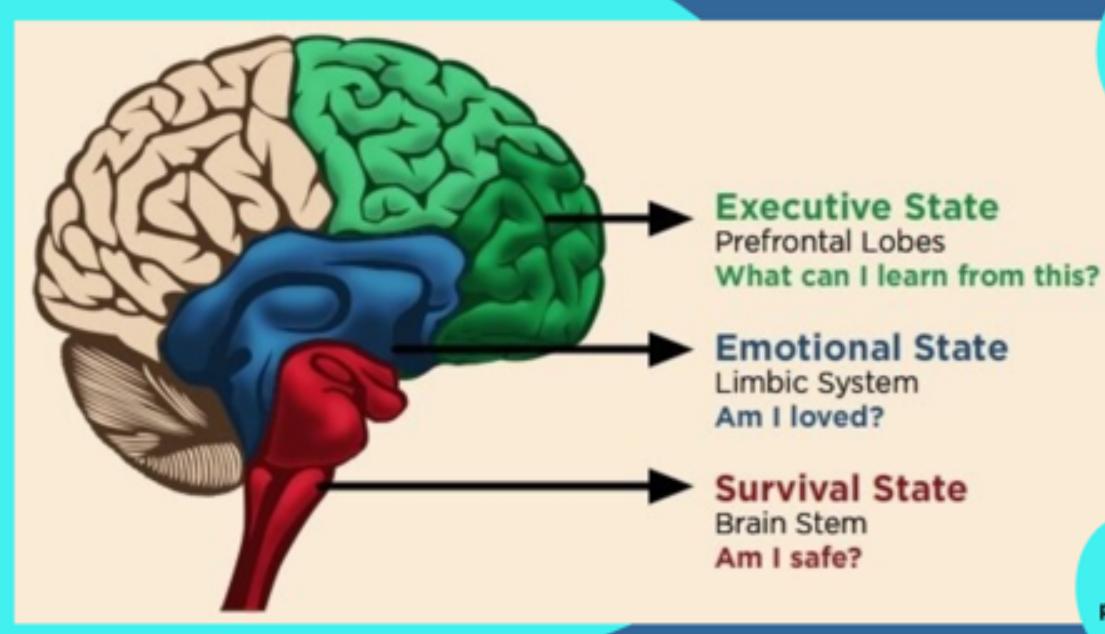


Neurodevelopment: the brain is a use dependent organ.



3 essential questions





another perspective

Humans are social beings:

"For the vast majority of the last 200,000 years, humans have lived in multigenerational, multifamily hunter-gatherer bands characterized by a rich and continuous relational milieu.

...there were roughly four developmentally more mature potential caregivers for each child under the age of 6.



This enriched relational ratio helped the group protect, nurture, educate, and enrich the lives of each developing child."

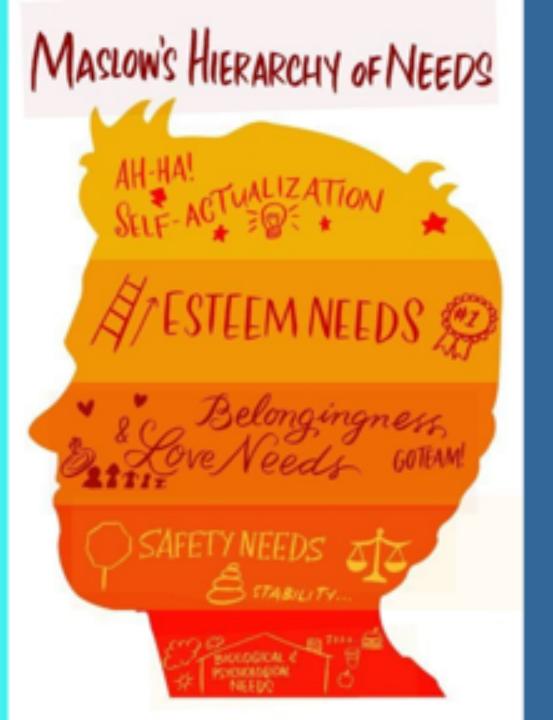
"Individuals who have few positive relational interactions—a child without a healthy family/clan—during or after trauma have a much more difficult time decreasing the trauma-induced activation of the stress response systems...

Positive relational interactions regulate the brain's stress response systems and help create positive and healing neuroendocrine and neurophysiological states that promote healing and healthy development both for the normal and the maltreated child."

Resilience

Resilience - built upon a foundation of safe, consistent relationships

- 5 key elements (from The Search Institute) to nurture others:
 - Express care
 - be consistent, listen to learn, encourage others
 - Challenge growth
 - expect our best, reflect on failures and successes
 - Provide support
 - set boundaries, advocate, help navigate
 - Share power
 - include, collaborate, let others lead
 - Expand possibilities
 - inspire, connect, believe in our strengths



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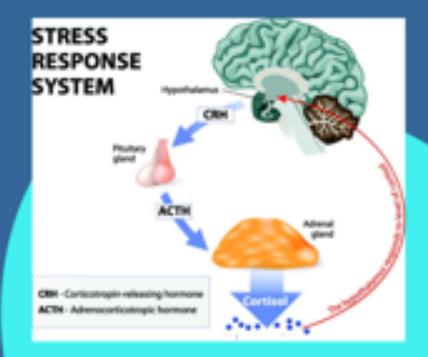
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Again, let's breathe

Stress



Our response to stress is a predictable cascade of reactions... chemical, physical, cognitive, and emotional (eustress)

Brief increases in heart rate, mild elevations in stress hormone levels; offering opportunities to adapt, learn and grow flexibly.

(distress)

Significant, temporary stress responses, buffered by supportive relationships. Temporarily overwhelmed.

TOXIC (trauma) Prolonged activation of stress response systems in the **absence of protective relationships**. May see gaps in neurodevelopment and dis-ease.

THREAT-BASED MINDSET RESPONSE TO CHALLENGING INFORMATION

Flock is the first step... There's safety in numbers!



Flop... play dead or dissociation ACEs Stress Development

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Adverse Childhood Experiences

What is an ACE?

Multiple levels of ACEs

ACE Outcomes

The ACE Pyramid

ACEs

What is an ACE?

Adverse childhood experiences are stressful (toxic stress) events that occur in childhood (0-17 years).

Silver lining! ACEs can be prevented.

ABUSE



Physical



Emotional



NEGLECT



Physical



Emotional

HOUSEHOLD DYSFUNCTION



Mental Illness



Incarcerated Relative



Mother treated violently



Substance Abuse



Divarce



Death

Disease,
Disability, &
Social Problems

Death

Disrupted Neurodevelopment

Adverse Childhood Experiences

Social Conditions / Local Context

Epigenetics

Generational Embodiment / Historical Trauma

Conception



ACEs are: Common

> 2:3 with 1 ACE 1:8 with 4 ACE

1:11 with 6+ ACE

clustered, & costly

\$112 Billion/yr for US

ACE Outcomes

33% report no ACEs	51% report 1-3 ACEs	16% report 4-8 ACEs
With 0 ACEs	With 3 ACEs	With 7+ ACEs
1 in 16 smokes	1 in 9 smokes	1 in 6 smokes
1 in 69 is alcoholic	1 in 9 is alcoholic	1 in 6 is alcoholic
1 in 480 uses IV drugs	1 in 43 uses IV drugs	1 in 30 uses IV drugs
1 in 96 attempts suicide	1 in 10 attempts suicide	1 in 5 attempts suicide



OLDER CHILDREN - High School Sophomores and Seniors

Washington School Classroom (30 Students) Adverse Childhood Experiences (ACEs)

6 students with no ACE
5 students with 1 ACE
6 students with 2 ACEs
3 students with 3 ACEs
7 students with 4 or 5 ACEs

3 students with 6 or more ACEs

58% (17) students with <u>no</u> exposure to physical abuse or adult to adult violence

29% (9) of students exposed to physical abuse or adult to adult violence

13% (4) of students exposed to physical abuse and adult to adult violence

Population Average



An exercise...

Listen and note the trauma impacts





ACEs Stress Development

breathe

Focus on the brain



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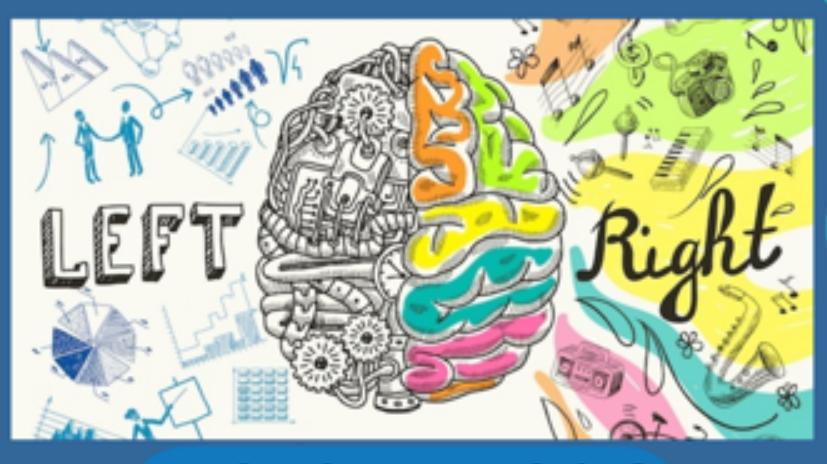
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exploring multiple perspectives...

4 characters of the brain -Jill Bolte Taylor, PhD

NeuroSequential theory -Bruce Perry, MD, PhD

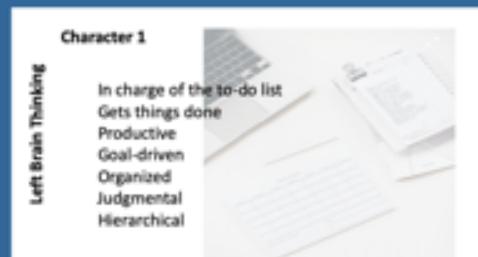
> Polyvagal theory Stephen Porges, PhD

Whole brain living by Jill Bolte Taylor, PhD

Can you nurture a Mary heart in a Martha world?

-Luke10:38

Past & Future; thinks in words



Character 4

ight Brain Thinking

Goal is to love and be loved unconditionally
Grateful
Connected to all that is
Open-hearted
Connected
Expansive
Generous

Character 2

Protects you from getting hurt
Perceives threats based on past
Cautious
Anxious
Egotistical
Suspicious
Deceptive
If unhappy, wants everyone to be unhappy

Character 3

Moves toward anything julcy in the here and now
Adrenaline junkie
Playful
Creative
Empathic
Forgiving
Curious
Awe-inspired

Present; thinks in images

Be as children...

When you feel out of control...B.R.A.I.N.

Breathe - stop, center, get curious

Recognize - what character is running the thought process?

Appreciate- appreciate all 4 characters' roles and value to us

Inquire - ask questions about the response (next move)

Navigate - flexibly respond to the dynamic demands of life

"Truly, I say to you, unless you turn and become like children, you will never enter the kingdom of heaven."

- Matthew 18:3

Consider this...children are right brain dominant until approximately 18 months of age. Brain hemispheres aren't fully connected until approximately 7 years.

The right brain is focused on the present moment, relationally connected, peaceful, grateful, mindful, and has the capacity to soothe and regulate the left brain. Think & share

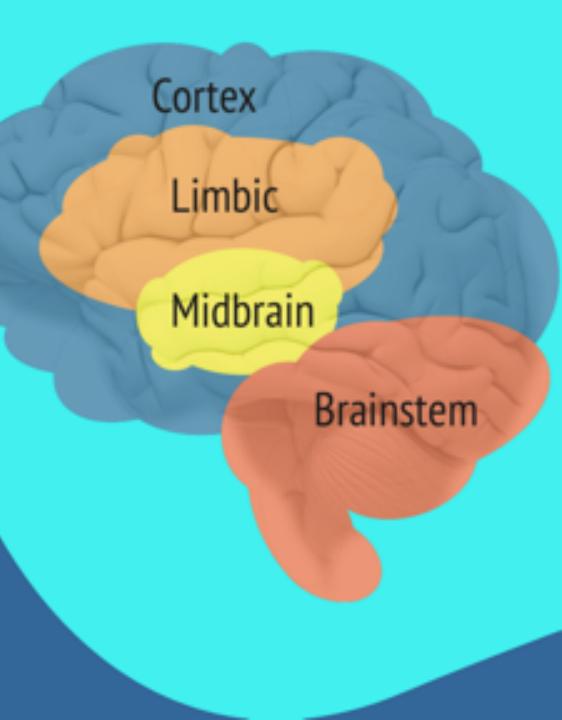
What does it look like to "be as children"?



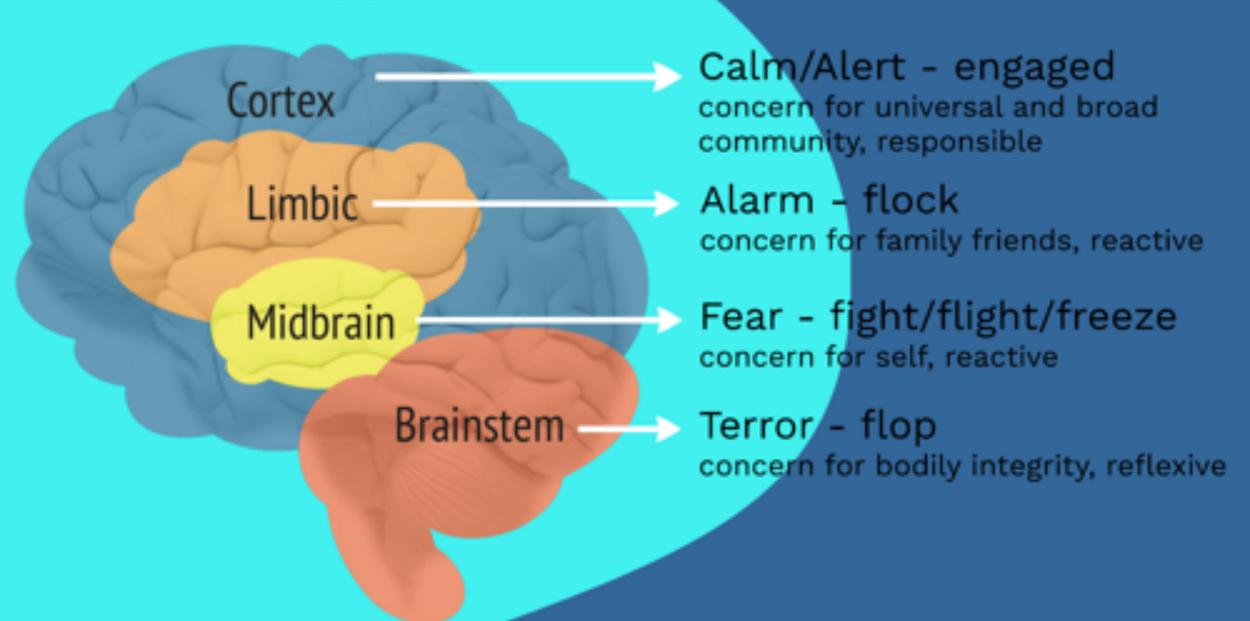
Brain regions

Brain states

NeuroSequential Model of the Brain -Bruce Perry



Brain States of Arousal



Self-regulation: putting time and space between the stimulus and the reaction Co-regulation: an interactive process of regulation within the context of caring relationships

So do not fear, for I am with you; do not be dismayed, for I am your God.

Indicators & Interventions

Or Personal Property and Advanced

cortex: engaged, effective communication, curious, listening processing, imagination, creative, explicit memories

this is where we want to be

limbic: lack of focus, distracting others/attention seeking, short term memory issues, emotional lability, implicit memories

peer-to-peer partnering, singing, music and movement, mirroring, animal assisted activity, empathy

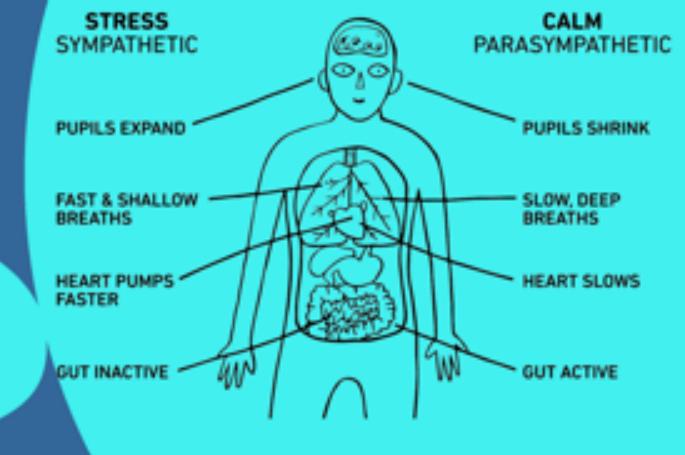
midbrain: movement (fine and gross), sensory seeking, eating issues, fight-flight-freeze walking, running, fidgets, bilateral movement, doodling, alternative seating, balance poses, drumming, music

brainstem: infantile behaviorssucking, rocking, swaddling, skin sensitivity, eye movements, dissociation rocking, breathing, swinging, chewing, sucking, sips, humming, music at 60-80 bpm, somatosensory stimulation How do we support people's self-regulation needs, in real time, during Meeting for Worship?

For those with early adversity this may be challenging.

Autonomic states

Cues



Autonomic Nervous System

Polyvagal Theory by Stephen Porges, PhD

Autonomic states:

Connect- social engagement Protect- mobilize Disconnect- immobilize

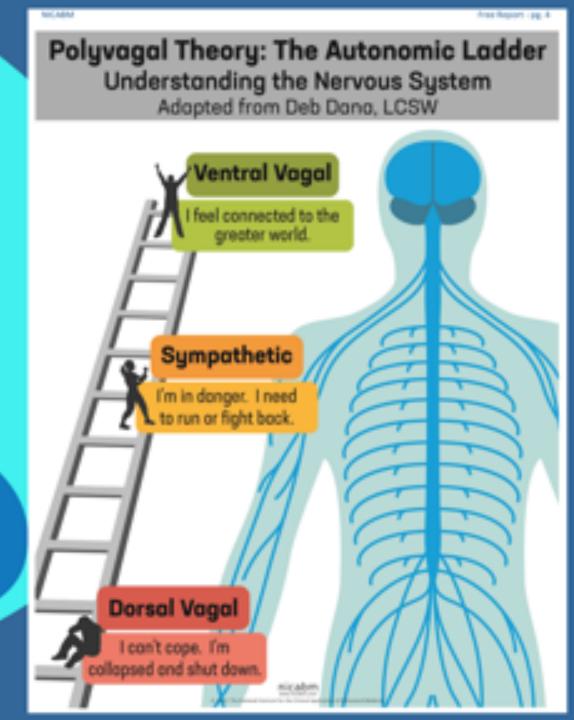


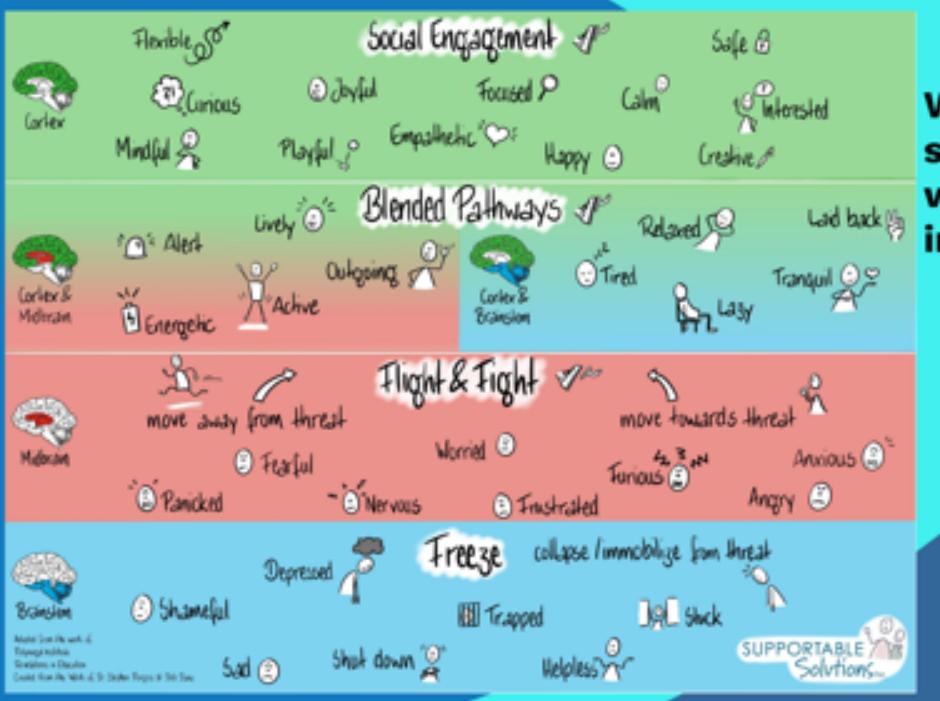
Neuroception

Blended states

Be still and cool in thine own mind and spirit.

George Fox





What autonomic state are we in when 'gathered' in Worship?

> Be still and know that I am God. Psalm 46:10

Why body language matters!

Neurocephon

Our brains constant evaluation of safety in our environment done al a subconscious level Threatening body language will activate our feeling brain because its job is to keep us safe.

The way your face & body looks and sounds will literally change someone's brain!

Normal breaking role Related muscles lawking gahars Carwas at sides or your, welcoming, gunik konhé kugu) Smooth , oredictable movements Open, welcoming body Below or all eye level Norkal Dee Smilt5 Gye contact that is sustained, breaks away. Then returns

Vaned inflethon Appropriate volume for the situation Not too fast or too slow rate Warm & Caring tone Adequate wait "time Back and forth communication

> SUPPORTABLE Solutions

Threatening body Language

Shallow, East breathing Torse face, body, and muscles Inrestoring gesteres (hands on hips .. arms cressed , fingers pointed, leaning forward, arms up in the air) Fits), [request, & impulsive movements Large, closel off body Gyes Squinled or wide open Cyclorous archel downward Moulle highly & straight or in a frown, pursed lips Darling exe contact

Morofone, voice amulov boot Figh or low pikh Sarcashic Hoshle or grampy fall rak Tense.

Clondred 2 section

Interragating

Cues of Safety

Cues of Threat

versus

Think &

share

Inforupting

What cues of safety do we send/receive in Quaker Meeting?

What cues of threat do we send/receive in Quaker Meeting?

What else might we offer to support safety and belonging in Quaker Meeting?

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Community-

Individuals (left brain) working together (right brain)

We all need...

Light

You are the body of Christ. Each one of you is a part of it.

1 Corinthians 12 - 27

Safety (physical, psychological, financial, spiritual) &

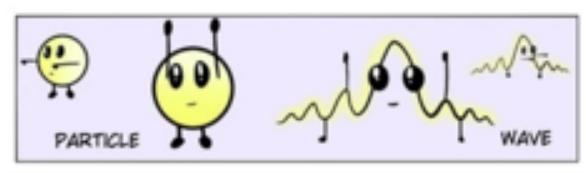
Where 2 or 3 are gathered in my name, there I am. -Matthew 18:12

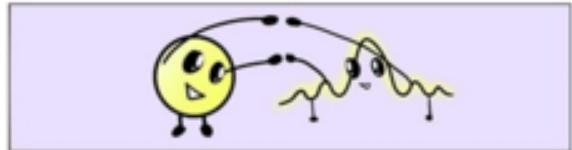
Belonging (relational safety) to be in community

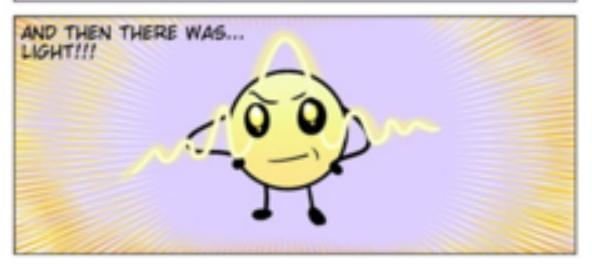
We need to be seen, heard, and valued, as individuals by our community.

The Ark of Peace is entered two-by-two... -A Course in Miracles

LIGHT... dual properties



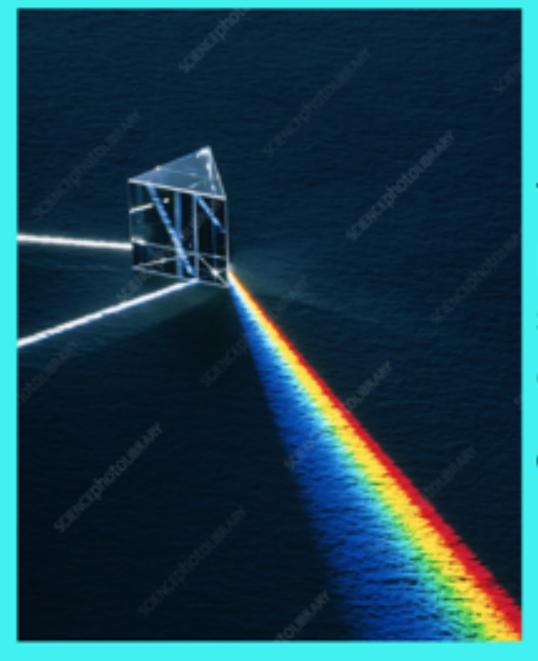




The Light is one and the same, which enlightens every one that comes into the world, believers and unbelievers.

-George Fox

Refraction



Tower of babel story...
From there the Lord
scattered them over the face
of the whole earth.

Genesis 11

Remember

Re-member who you are...



The first step of peace is to stand still in the Light.

George Fox





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- · Creating sanctuary: Toward the evolution of sane societies by Sandra Bloom
- My grandmother's hands: Racialized trauma and the pathways to mending our hearts and bodies by Resmaa Menakem
- What happened to you: Conversations of trauma, resilience, and healing by Bruce Perry and Oprah Winfrey
- Born for Love by Bruce Perry and Maia Szalavitz
- The boy who was raised as a dog: And other stories from a child psychiatrist's notebook by Bruce Perry and Maia Szalavitz
- Why zebras don't get ulcers by Robert Sapolosky
- The deepest well: Healing the long-term effects of childhood trauma by Nadine Burke Harris
- The body keeps the score by Bessel van der Kolk
- My stroke of insight by Jill Bolte Taylor
- Whole brain Living by Jill Bolte Taylor
- In an unspoken voice: How the body releases trauma and restores goodness by Peter Levine
- Intentional Neuroplasticity by Lori Desautels
- The Myth of Normal by Gabor Mate'
- The Polyvagal Theory by Stephen Porges
- The pocket guide to the Polyvagal theory by Stephen Porges
- The polyvagal path to joyful learning by Debra Em Wilson

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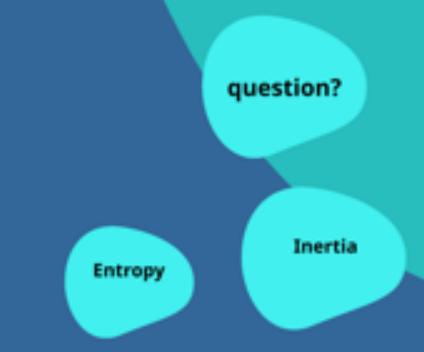
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a bit more science



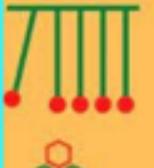
The degree of disorder or uncertainty in a system.



negative entropy: organizing a system...requires energy and focus.

Has the pandemic placed our Quaker Community at rest?





Newton's First Law of Motion, also known as the Law of Inertia, states that an object at rest will remain at rest until it is acted upon by an unbalanced force.

How do we overcome inertia and entropy to build the beloved community of PYM?

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