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The Neurobiology
of Grief and Loss



Presented by Ruby Jo Walker, LCSW

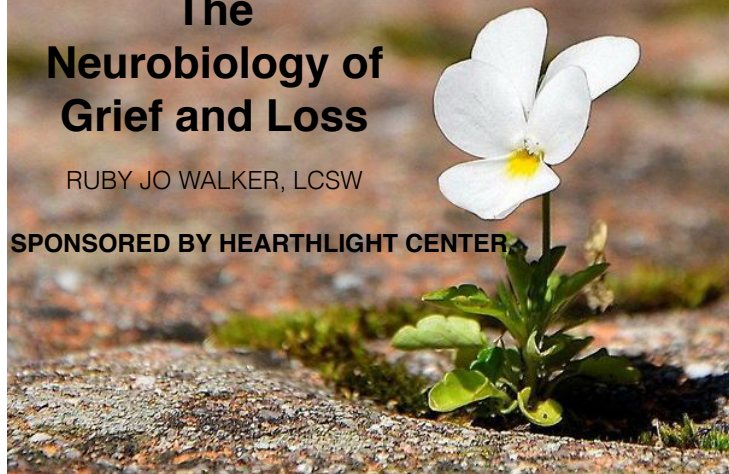
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April 13, 2021

The Neurobiology of Grief and Loss

RUBY JO WALKER, LCSW

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Understanding neurobiology can bring comfort and understanding. It explains what is going on in our nervous system, underlining that biology is creating responses, not coping or strength.

Stress, Trauma and Grief all Affect Nervous System Functioning

Stress is physical, chemical and/or emotional factor that causes strain and tension. It is your body's response to anything that requires attention and/or action.

Trauma is the response of a deeply distressing event that overwhelms the capacity to cope, causing feelings of helplessness, diminishes sense of self and the ability to feel the full range of emotions.

Grief a strong, natural reaction, caused by loss or significant change.

Traumatic loss:

- untimely or unexpected
- violence occurred—or the loss survivor witnessed violence
- part of the loss was perpetration and intent to harm
- believing the loved one suffered or that the death was preventable
- multiple deaths
- one's own life was threatened

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Grief is a natural response to loss. Not all losses create trauma symptoms, but they generally disrupt neurophysiology.

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Loss is a threat for our nervous system.

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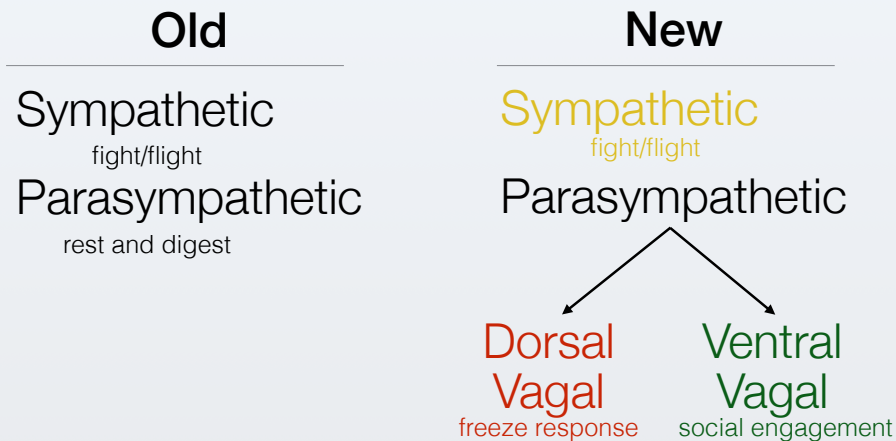
Polyvagal Theory—Dr. Steven Porges

- Evolution is the organizing principle of PV theory to understand social behavior of mammals.
- The three phylogenetically-ordered hierarchical systems are ways mammals respond to safety, danger and life threat.
- Neuroception (evaluative body process) of safety, danger or life threat will trigger these adaptive neural circuits.

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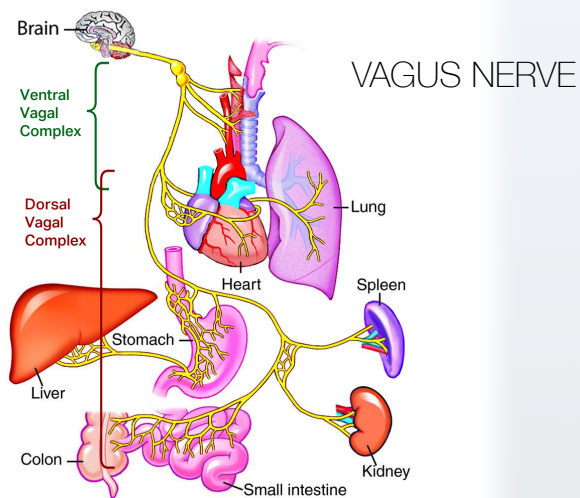
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POLYVAGAL THEORY



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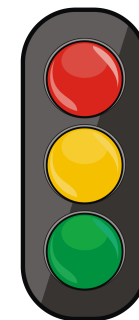


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Polyvagal Theory

- **LIFE THREAT—DORSAL—PARASYMPATHETIC—FREEZE**
- **DANGER—SYMPATHETIC—FIGHT/FLIGHT**
- **SAFETY—VENTRAL—SOCIAL ENGAGEMENT**



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NEUROCEPTION: OUR DETECTION OF SAFETY

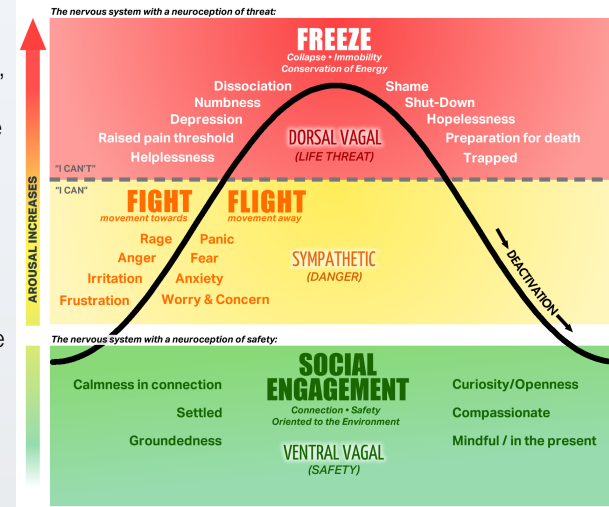
- It is not a cognitive process.
- It detects risk in others or the environment *without* awareness of us assessing it.
- It can promote defensive strategies of mobilization (fight/flight) or immobilization (shut down, dissociation).
- Early childhood trauma can make these states more automatic and long-lasting.
- Even if we are not cognitively aware of our neuroception, we always are affected by our body's response it.

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Hearing, learning, relating are all affected by these states, as well as emotions and behavior.

These states are significant in that they are the operative variable in impacting behavior and emotions.



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Dorsal Vagal Complex (DVC)

DVC includes:

- below the heart and into the gut, the subdiaphragmatic organs
- this is the most ancient system, also found in other species, connected to the "freeze" response.

The Dorsal Vagal Complex is a deep conservation state.

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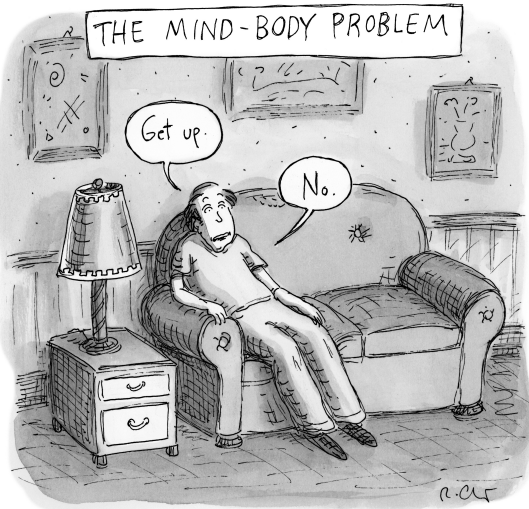
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Freeze (Dorsal Vagal Complex) Behaviors

- More on the depressed side
- Lethargy and tiredness—less active
- Hard to feel motivated/procrastination
- Having a "resigned" reaction to situations
- Hard to interact with others as it is too exhausting
- More memory issues
- Overwhelmed regularly

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Sympathetic Branch of ANS

Sympathetic ANS includes:

- all the organs and musculature that are connected to effort and doing, preparing and mobilizing for action.
- Fight/Flight

The sympathetic system is a mobilization and action state.

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Fight or Flight (Sympathetic NS) Behaviors

- More anxious or frustrated most of the time
- Overreacting to situations
- Getting angry and irritated easily
- Not feeling like one can rest
- More judgmental towards self and others
- Feeling like one wants to just get away
- Having more addictive behavior

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Most people have some freeze in the early adaptation of grief. Sometimes people see this as denial—it is more that the loss is simply too much to take in and integrate.

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This means that as people work through more grief, their symptoms may look worse as they move from freeze to fight/flight.

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"Watch yourself - he's feeling especially defensive today."

Ventral Vagal Complex (VVC)

VVC includes:

- above the heart
- facial muscles
- striated muscles in the neck
- middle ear, eyes, mouth
- larynx/pharynx

The ventral vagal complex is the social engagement system.

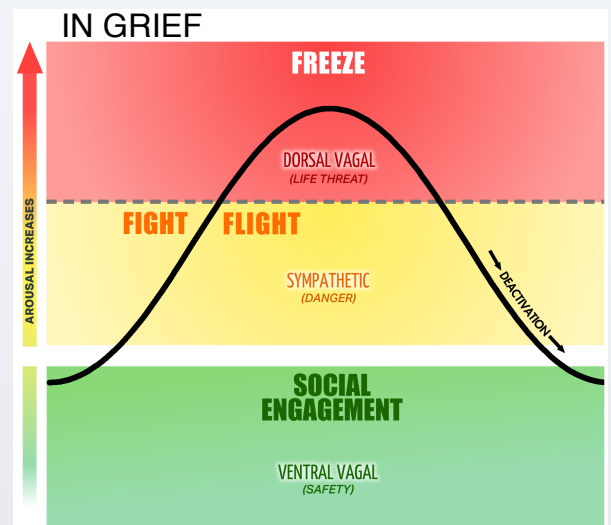
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Paralyzed, shut down, disengaged, depressed, "it is no big deal," ruminating, rationalizing, only thinking positively/spiritually, going through the motions—but actually disembodied. All of this is disconnection of experience—shut down.

Avoiding funeral, memories, talking about the loss, avoiding connection, trying to get away, anger at systems/people, staying busy, mainly angry or anxious, everything feels edgy. This is the body mobilized.

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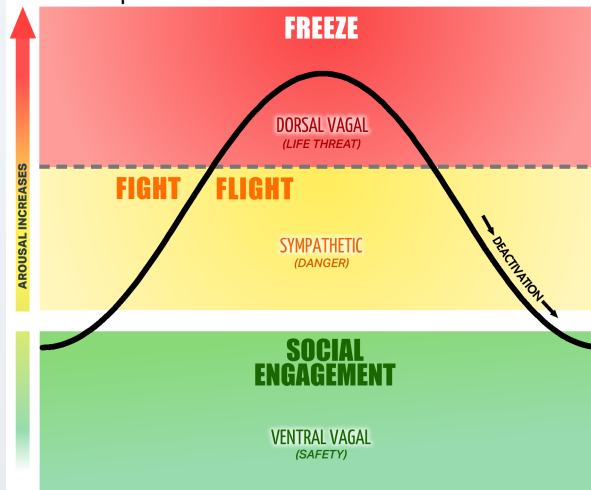
Internal Threat to Self-concept

Freeze:
Rumination

Fight:
Self-judgement

Flight:
Isolation and
mindless activities

Being connected,
using self-
compassion,
being present are
part of VVC.



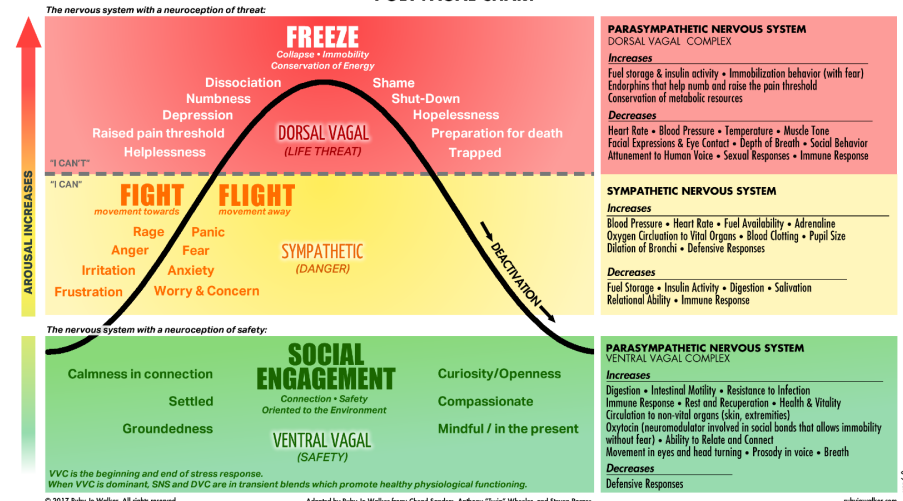
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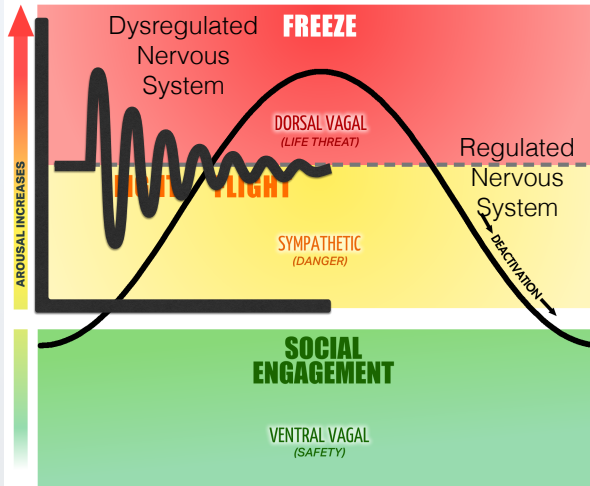
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POLYVAGAL CHART



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A dysregulated nervous system stays stuck in high arousal states

A regulated nervous system goes up but comes down into deactivation.

In a **regulated nervous system**, we change our response based on the situation.

We have a range of responses and choices.

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In a **dysregulated nervous system**, responses are based more on internal cues of the body (ANS), rather than responding to the current situation.

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Trauma and stress are accumulative for the autonomic nervous system.

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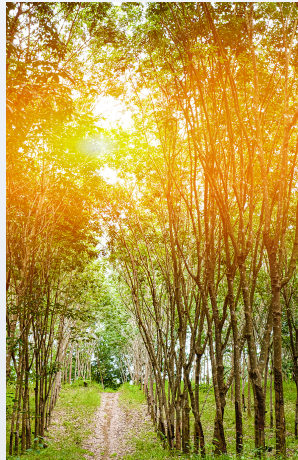
The physiological disruption can add to the losses during grief.

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What does all
of this mean for
getting through
grief?



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Strengthening capacity—one's
ability to hold one's own
emotional process—supports
getting through grief with more
ease, even though it is not easy.

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To expand capacity in
getting through trauma
or loss, it helps to be
working with resiliency
practices. Resiliency is
the capacity to recover
quickly from
difficulties. This state
must be cultivated for us
to expand and get
through situations with
more more ease and is
part of capacity-building.



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Capacity-building and resiliency
practices do not take away our grief,
as there are no short-cuts with the
grief process. But they can make it
feel more supported as we strengthen
our capacity to hold the grief.

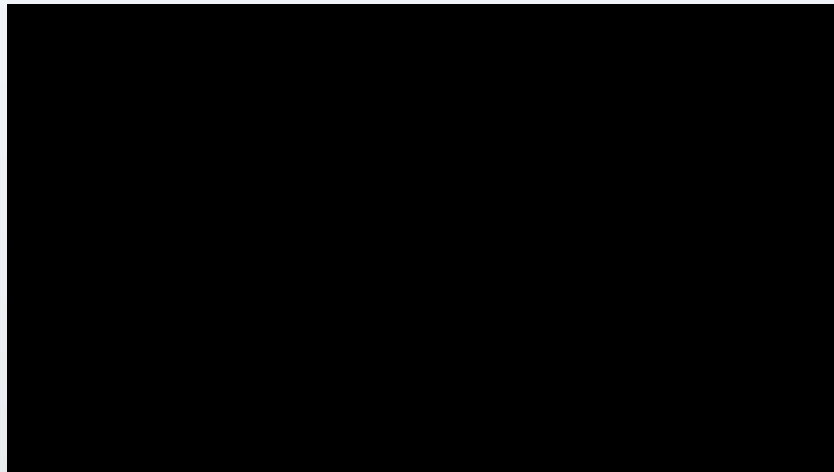
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Building capacity during
grief often needs to be
intentional and deliberate.

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*“Our soul and our psyche
know how to do grief. We
don’t need to learn it. It is not
a technique. What we need
to learn is not to avoid it.”*
—David Kessler

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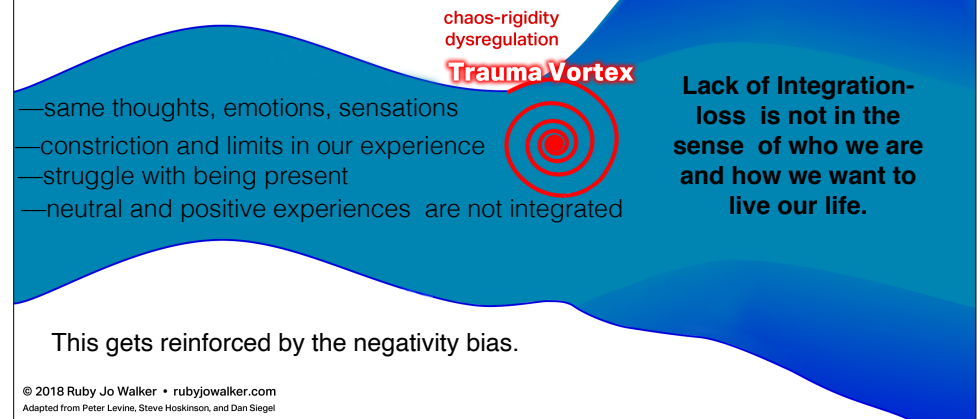
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There is generally going to be a heaviness, a hollowness, or an emptiness when we have loss—and feeling sadness. It is part of the grief process—as there is a void created by loss. This is part of being present to loss.

In grief, we are trying to integrate—life without this being we lost and who we are without the person's physical presence (or whatever we lost). This is integration. Feeling the void of the loss is a necessary part of integration.

Integration means we are able to be regulated and connected to others and ourselves. Our loss can be part of who we are in integration.

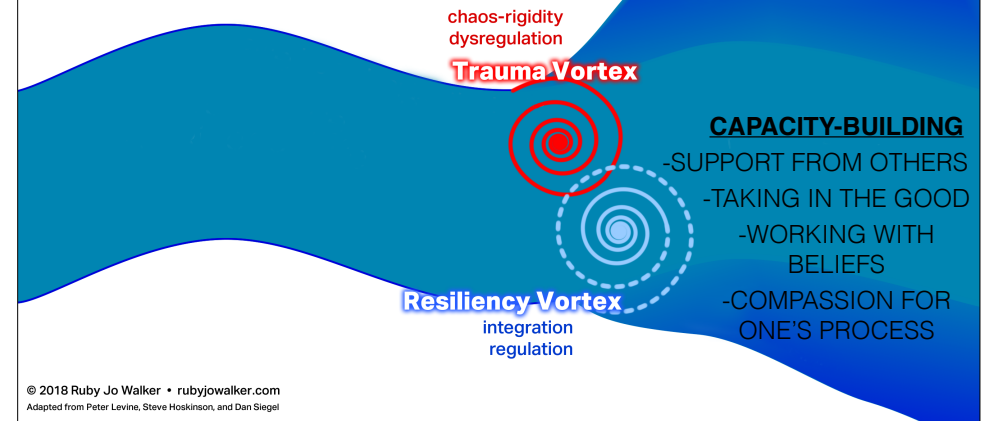
TRAUMA/GRIEF STATE



Affect of the Negativity Bias

- In “what-is-wrong” thinking
- Over-focus on the negative
- Remember the negative more
- Do not see the big picture because of this bias

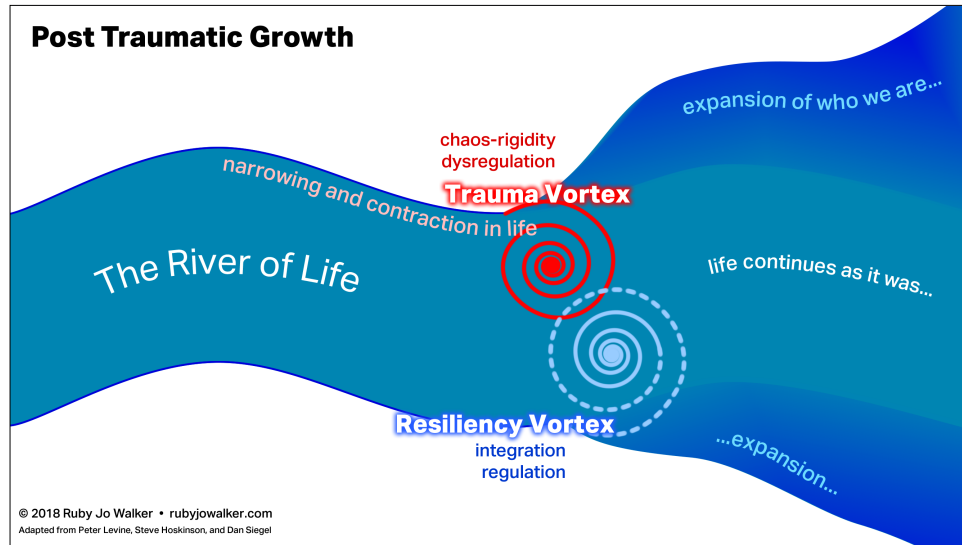
DEVELOPING CAPACITY MEANS STRENGTHENING RESILIENCE



Integration of more capacity on the body level can help us hold the grief and assist with mediating complex grief.

Post-traumatic growth often comes when people use the loss to expand their sense of themselves and work on core beliefs, connection to others and/or their spirituality, as well as finding meaning.

Post Traumatic Growth



We all need to learn to “take in the good” for our own capacity-building.



“Taking in the good” can be awe, gratitude, general human kindnesses, or even every day positive experiences.

“Taking in the good” is a Rick Hanson term.

Ratios of Positive emotions to Negative emotions

- Flourishing—must be 3,4,5 to 1
- Feeling stuck—is 2 to 1
- Depressed—less than 1 to 1

Regret, and even shame and guilt can be remedied by self-compassion.

What is self-compassion?

It is extending compassion to oneself in instances of perceived inadequacy, failure or general suffering.



Self-Compassion reduces anxiety and depression—and it is linked to resiliency.

Self-Compassion Resources:

- Dr. Kristen Neff—selfcompassion.org
- Dr. Chris Germer—chrisgermer.com
- Dr. Rick Hanson—rickhanson.net
- Tara Brach—Radical Acceptance
- Insight Timer—Free app with self-compassion meditation



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Feeling safe, satisfied and
connected supports
resilience.

—Rick Hanson

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“Humans need another
appropriate mammal to
regulate with”...to have their
nervous system function best.

—Dr. Steven Porges

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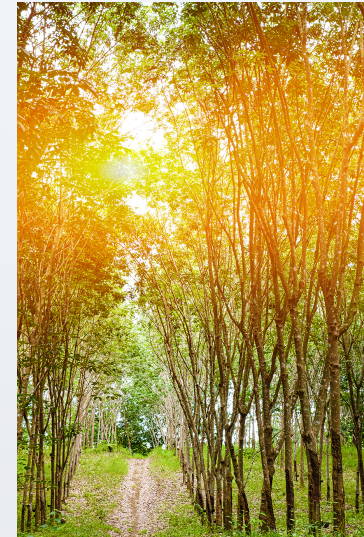
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We biologically cry out for regulation—we want joining with our nervous system for soothing, attunement, and real presence. Without the regulation of another, we stay in a state of defense.

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We are born with a need to be co-regulated with a caregiver and then, we learn to self-regulate.



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Dr. Alan Shore: “*The therapeutic alliance is not about the words that are said, but it is what is beneath the words.*” This means the body-based experience of the emotions, which is beneath the surface.

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Presence is holding someone's
wholeness, essential goodness,
inner wisdom and knowing while
offering loving- kindness.

Presence includes resonance:
psychobiological attunement—
being on the same wavelength.

The biology of presence is the
state we are in of the Ventral
Vagal Complex (VVC).

*What do you say when you
bump into someone's defenses?*
"Excuse me."
Unknown Author

“Kind eyes” promotes
safety.

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Our ability to offer presence is one of our biggest offerings—not only to signal safety to another nervous system, but it helps to regulate the physiology of both parties.

Attunement is focusing our attention on the experience of another. Resonance is an interactive experience where the other feels felt, an outcome of psychobiological attunement.

How to Attune:

- Get present and regulated in whatever way you can.
- Offer understanding with the presence, a sense of “getting it,” a sense of being with the person as they talk or express.
- Track the person to see if they feel met by what is said—by watching language, emotions, and the body.
- Check in and “course correct” if you are off track, and do not take it personally.

The misattunement like “*time will take care of this pain*” or “*it is God’s will*” just elicits more threat activation in our nervous system. We feel someone is “not with us” in a way that keeps us in threat.

We know that learning to have support assists in the grief process and supports building capacity.

Feeling this sense of support in the body also deepens our ability to integrate support



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Attachment patterning can affect how grief affects people as it affects the ability to be regulated by support. This is also simply biological adaptation.

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*“**Attachment** is a deep and enduring emotional bond that connects one person to another across time and space.”*

—Ainsworth, 1973, Bowlby 1969

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We are born with a need to be co-regulated with a caregiver and then, we learn to self-regulate.

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Attachment is part of our adaptation strategy as it is formed from the relationships of caregivers. In secure attachment, caregivers **amplify** the positive emotional states and **modulate** the negative ones.

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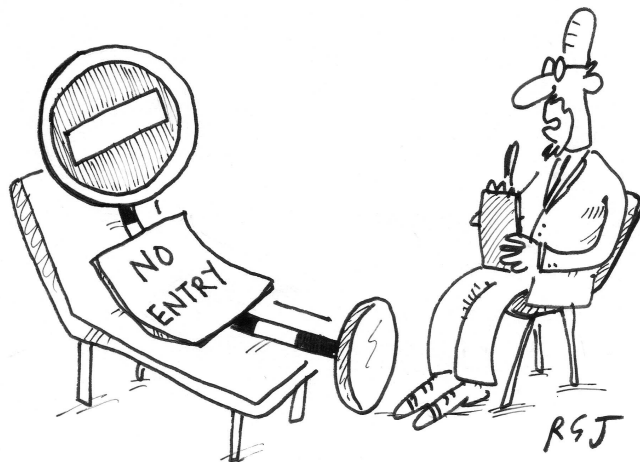
CAREGIVING BEHAVIOR AND ADAPTATIONS

CAREGIVING BEHAVIOR		ATTACHMENT ADAPTATION		RELATIONAL FOCUS
ATTUNED AND RESPONSIVE	→	SECURE	→	BALANCE WITH OTHERS & SELF
DISMISSING/ IGNORING	→	INSECURE/ AVOIDANT	→	AVOID CONNECTION
PREOCCUPIED/ INCONSISTENT	→	INSECURE/ ANXIOUS	→	OVER-FOCUS ON RELATIONSHIP
FRIGHTENING OR FRIGHTENED	→	DISORGANIZED	→	NOT REGULATED BY RELATIONSHIP

ADAPTATION FOR RELATIONAL STYLES

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"You need to learn to let people in."

Impact of Attachment Insecurity Adaptations

- Not being able to let others in for support with a tendency to "go it alone" (AVOIDANT)
- Not fully taking in support when it is available (ANXIOUS)
- Deeper dysregulation in the ANS that presupposes people to more distress psychobiologically (ALL ATTACHMENT ADAPTATIONS)

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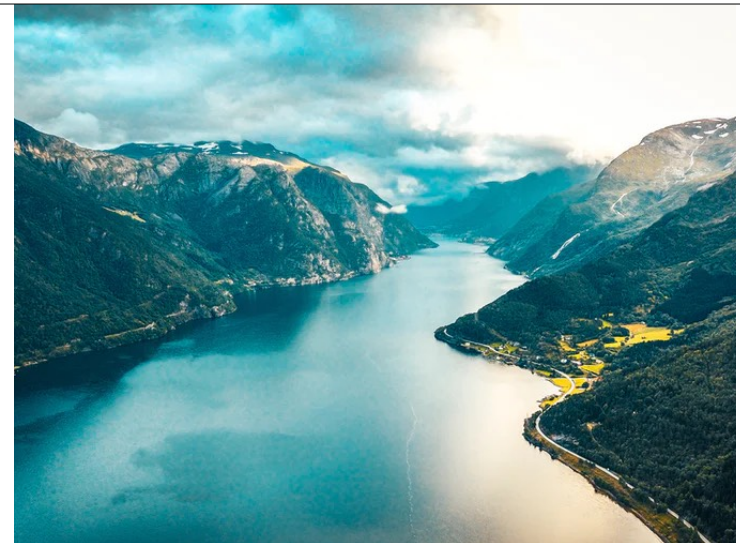
SUPPORTING DIFFERENT ATTACHMENT ADAPTATIONS

Avoidant Adaptation—Look away some as less eye contact is safer. Keep face warm and kind, do not be too intrusive as they can feel smothered easily, but show you are working as an ally. Go slowly.

Anxious Adaptation—Keep connection in the session. Show you are with them reliably and try to be consistent. Have them actually embody you being with them on the journey if possible as it is hard for them to integrate the help they get.



The good news is we can all
move to “earned secure
attachment.”



Grief feeling stuck often means we have a faulty belief that got “turned on” from early childhood. This impedes integration.

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General core beliefs tend to be connected to safety, needs/support, sense of power, authenticity, freedom to be ourselves and feeling a sense of value.

In grief and loss, a sense of over-responsibility (“it is my fault”) (“I did not do enough”), deservingness and punishment often come up.

We often get “stuck” in grief if a core belief is activated.

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Whenever we have a belief, we look for it to be true. This is the brain trying to make patterns as it tries to be more efficient.

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Self-compassion is important when a core belief is triggered as it can bring more softening to the grief process.



Positive states installed in the body strengthen neural pathways and support capacity .

How to strengthen states in the body somatically:

- 1) **Get permission to move to the body:** *"Is it ok to slow this down and notice your experience more?" "This feels important and I would like to really pay attention to this—can we do this now?"*
- 2) **Embody the experience:** *"When you say that, what do you notice in your body?" or "What is happening in your body when you bring up this up?" "How is your body right now as you mention this?"*
- 3) **Fill out the experience:** *"Do you get a particular image or color as you say this?" "What happens when you pay attention to this?" "What else do you notice in your body?"*
- 4) **If it is positive, strengthen the state:** *"Let's stay with this if that is ok." "Is it ok to hang out here more?" "Can you just notice this more?"*
- 5) **Have client feel whole self after this:** *"What are things like for you now?" "How are you doing now after slowing down and experiencing this?"*



Summary

- Understanding the biology of grief responses can help reduce shame and judgement.
- There is no short cut to grief, but we can build capacity to support the grief process.
- Increased capacity is supported by assisting clients in taking in goodness in life, taking in support from others, and developing self-compassion.
- Both core beliefs and attachment adaptations can affect the grief process and integration. Working with them can support the journey of grief.

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**The Neurobiology
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