

DAITA LITE
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Contemplative Based Trauma and Resiliency Training:
Mindfulness as an Antidote to Stress



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Learning Objectives

1. Rethinking the stress paradigm through learning about the neurobiological mechanisms of the body in response to stress.
2. Identifying ease and tension in the body and daily life.
3. Practicing mindfulness and self-compassion.

Contemplative-Based Trauma and Resiliency Training (CBTRT)

Developed for the International Center for Mental Health and Human Rights
CBTRT offers a new trauma paradigm informed by research at the intersection of neurobiology, attachment theory, group therapy and contemplative science for caregivers working with wounded communities.

Participants learn valuable practices, resources and strategies
to strengthen neural integration, self-regulation and resiliency;
to protect against the risk of vicarious traumatization and burnout;
to work more skillfully with wounded communities.

The CBTRT Certification program begins with an 8 week online group immersion experience, [The Portable Calm](#). Our efficacy research, utilizing the WHO-5 Wellbeing Index, demonstrated robust positive outcomes for caregivers on the frontlines of trauma.

The great thing, in all of education, is to make our nervous system our ally instead of our enemy.

William James, *The Principles of Psychology*, 1890

The most profound insight that we can teach, is that we can change our arousal systems.

The most important training to undergo is to know how to begin with ourselves.

THREE KINDS OF STRESS

Acute Stress

Exposure to stressful conditions or circumstances that are unusually intense lasting for a period of time or a brief duration, resulting in intense states of arousal which exceed the inner and outer resources of an individual's capacity to cope.

Cumulative Stress

When stress builds over time, it can leave a trace within the nervous system if there is no opportunity to rest, restore and return to a pre-exposure baseline.

Previous exposure to traumatic events can increase the level of cumulative stress, decreasing the ability to be resilient to new stress.

Eustress

When stress is experienced as a challenge, coped with successfully and, in some cases, perceived to be positive this can produce *post traumatic growth or eustress* that can offer a positive and transformative impact upon the individual, family or community.

Post Traumatic Growth

Resilience is defined as the ability to bounce back and come to terms with traumatic events. Adaptive skills, practices that can be learned, and capacities that can be strengthened create protective factors that enable resilience. Personal history can present risk factors for the development of resilience thus developing risk factors for developing PTSD.

PTSD is not a given.

Protective Factors

Positive emotions hope, optimism, gratitude, acceptance, curiosity, humor

Pro-social behavior turning “towards” and staying connected and socially engaged

Self-regulation the ability to stay within an optimal range of arousal, and to reliably re-regulate when distressed

Sensory Stabilization the ability to stay mindful, present and grounded in the body

Compassion Practice a stance of loving-kindness, acceptance and a wider perspective about suffering



THE BRAIN'S EMERGENCY CIRCUITRY

The brain's emergency circuitry can signal **mobilization and immobilization to persist**, over-riding higher cortical processing.

Normal Up-regulation:

Arousal energy mobilized- available for immediate discharge

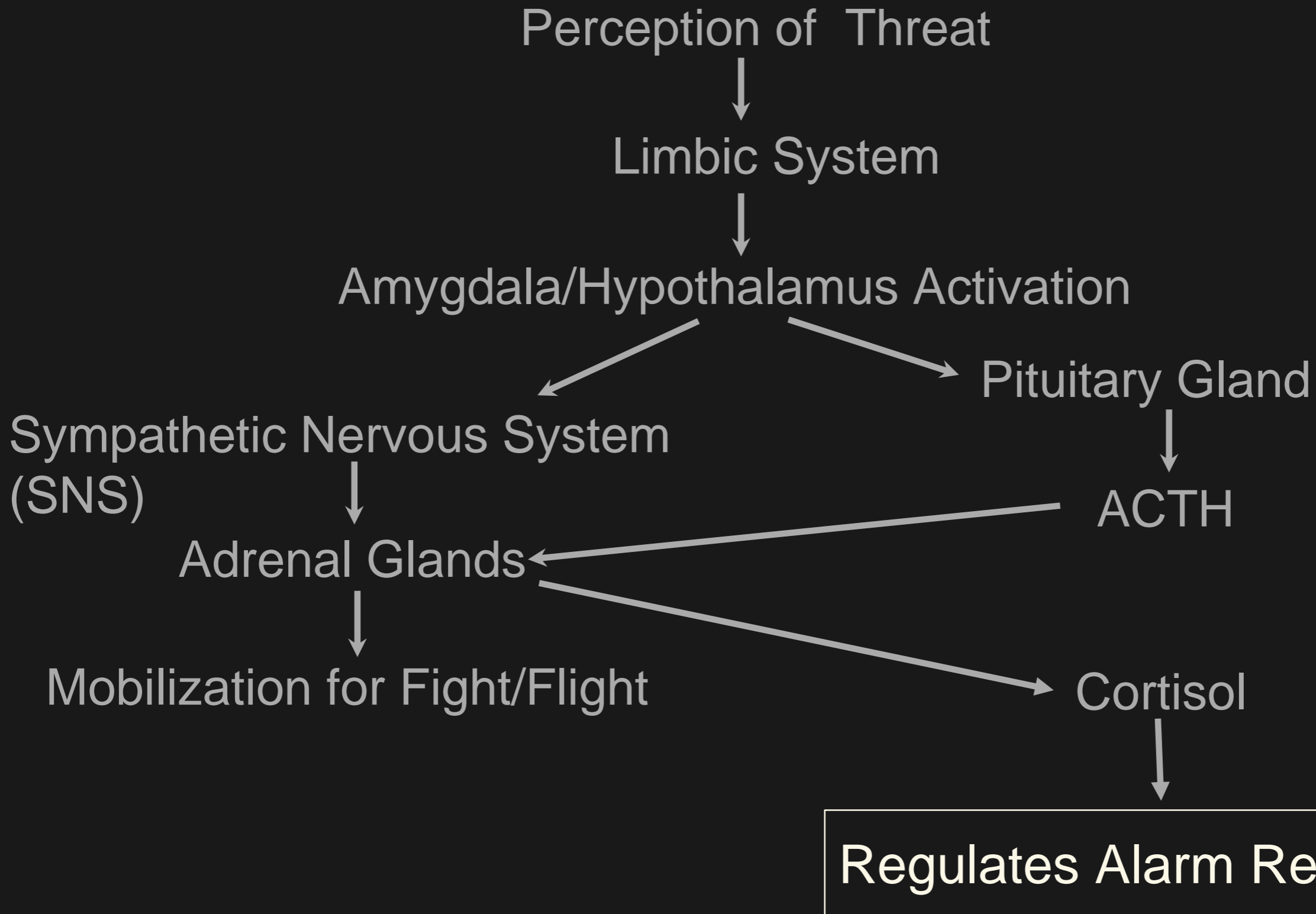
Normal Down-regulation:

Arousal energy adequately discharged, or calmed

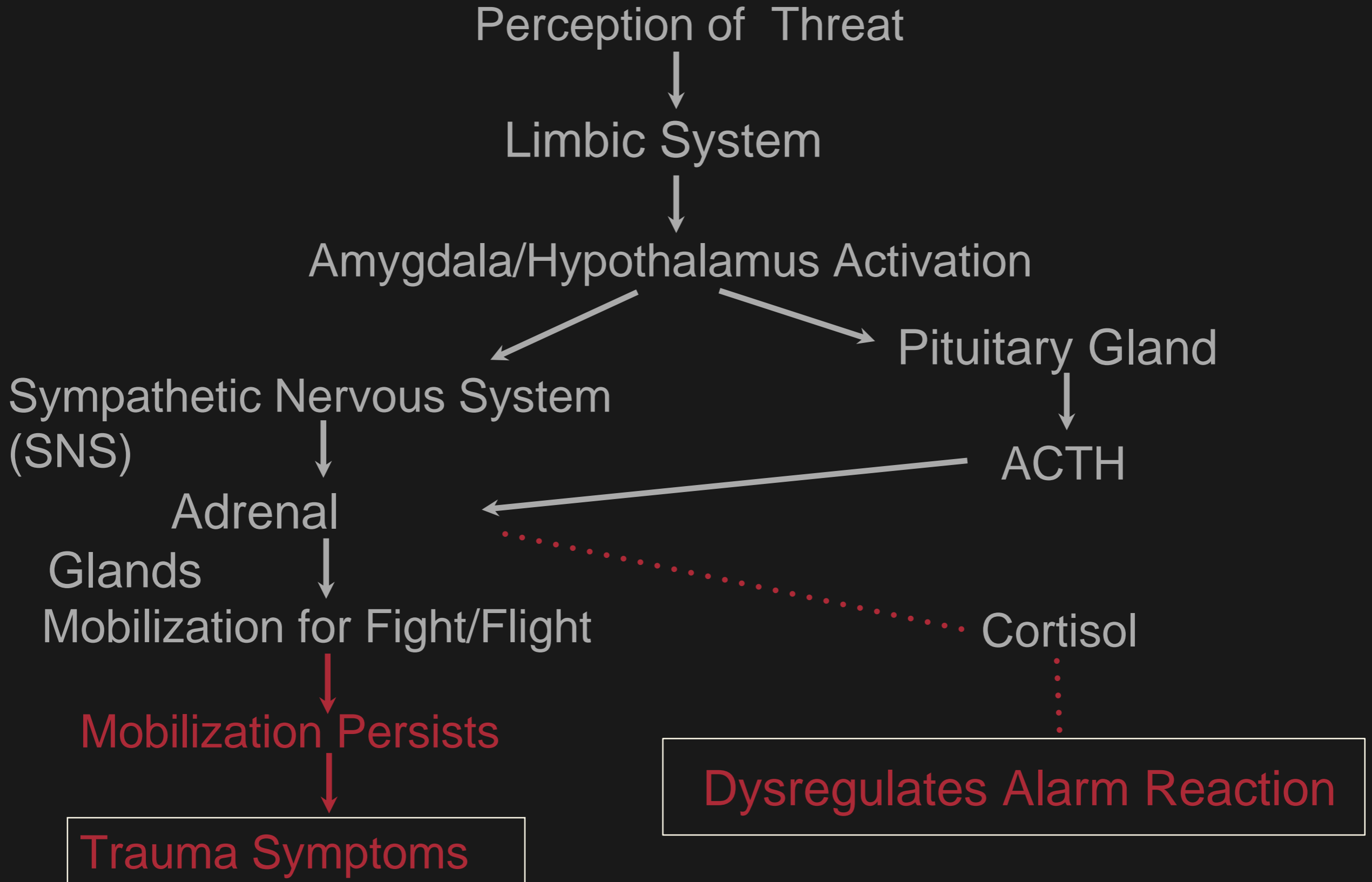
Extreme stress:

rather than mobilization, we can move towards immobilization (dorsal vagal shut down)

Normal Response the Threat



Post Traumatic Stress Response



THE AROUSAL SYSTEM

Arousal is physiological activation experienced as sensation in the body. Arousal energy mobilizes the biological circuits of the brain triggering the **Sympathetic Nervous System (S)NS** to prepare the individual to respond to the perception of threat by:

- Increasing adrenaline and cortisol
- Elevating blood pressure
- Altering breathing patterns
- Increasing muscular tension



The human brain is “experience dependent” and extremely vulnerable to the impact of acute or prolonged experience of stress.



Dysregulated arousal alters, disrupts and can impair normal functioning; self-regulation, cognition, emotional experience, normal behavior and social relatedness



Hyper-arousal

panic, sleep disturbance, agitation, nightmares, increased heart rate, chronic stress, isolation, muscle, chest, gastrointestinal tension, racing thoughts, excessive worry

Hypo-arousal

dissociation, slowed response, freeze, fatigue, cognitive and emotional numbing, isolation

Bi-phasic

mood swings and related self-regulatory attempts

Symptoms of dysregulation can develop into

post-traumatic stress

vicarious trauma

secondary traumatic stress

or compassion (empathy) fatigue*

- compromising the capacity for self-regulation
- narrowing the window of tolerance for affect and arousal
- increasing vulnerability to burn-out
- decreasing motivation and performance
- increasing emotional disconnection
- cynicism
- emotional and physical fatigue
- feelings of inadequacy and helplessness, decreased self – esteem

A NEW TRAUMA PARADIGM

In the nervous system, “trauma” is a problem between heightened arousal and the capacity to self-regulate, leaving the individual without the ability to remain within an “optimal arousal zone” and connected through the social engagement system in healthy attachment relationships.

Trauma symptoms are **NOT** caused by the event itself.

Trauma is expressed by **symptoms of dysregulated arousal.**

SELF- REGULATION

-
- **SELF-REGULATION**

- is the ability to manage internal levels of arousal and emotion, enabling more adaptive choices about behavior when coping with adversity.

SELF-REGULATION ENABLES THE CAPACITY

- To know and manage our emotions
- To bear an immediate stress without overwhelm or avoidance
- To recognize emotions in others
- To return to calm after a stress
- To reflect and respond flexibly
- To make use of these abilities in relationships

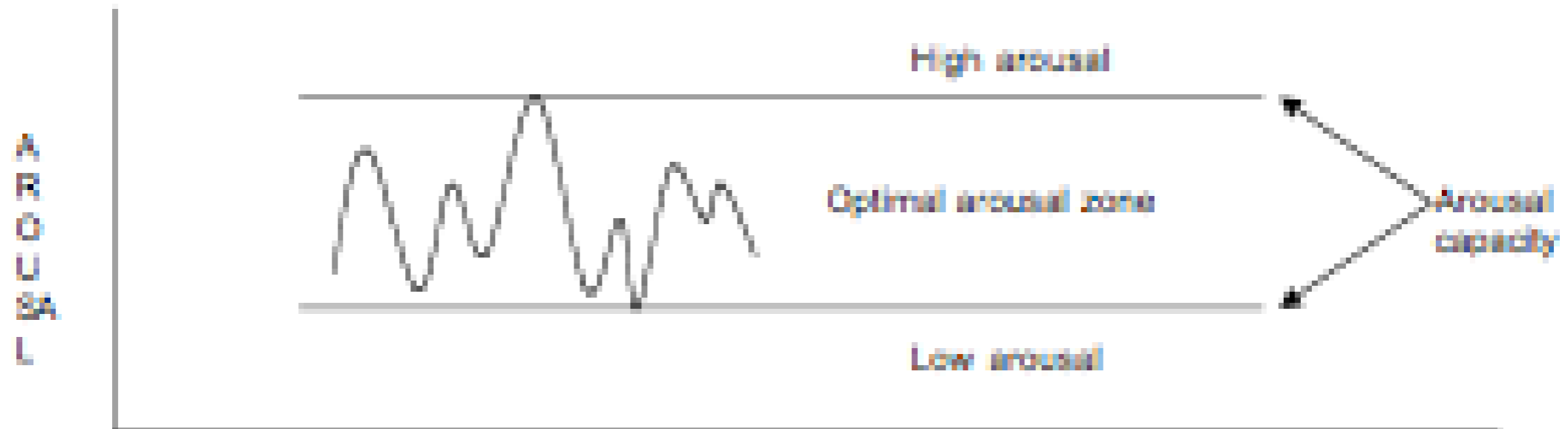
Acute or cumulative stress can disable the capacity to remain within an “optimal arousal zone.”

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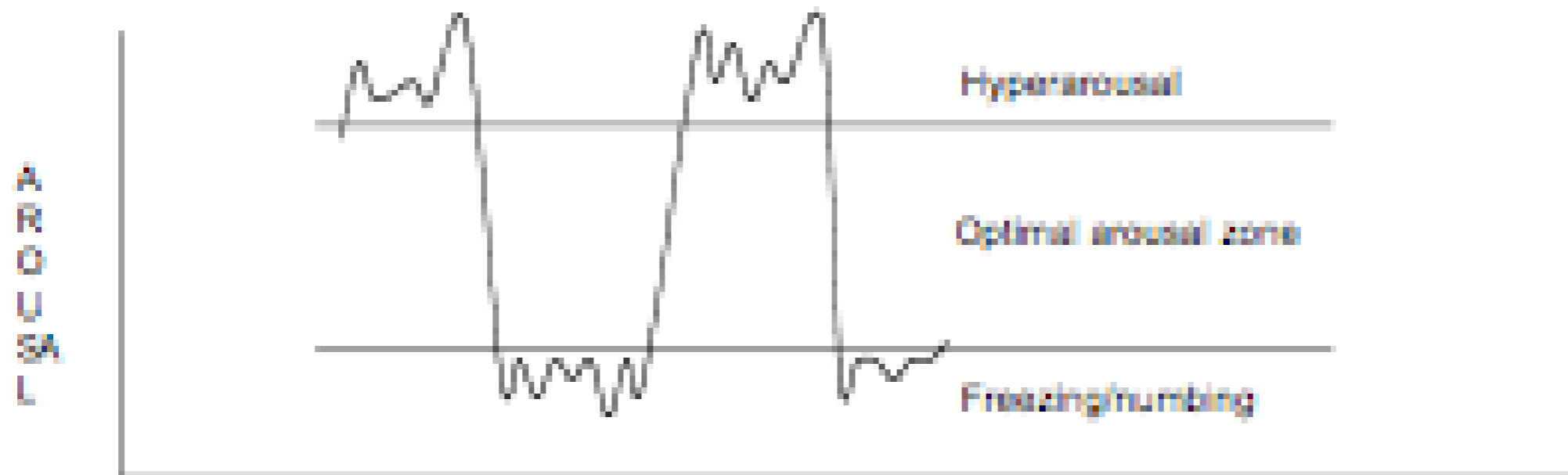
THE OPTIMAL AROUSAL ZONE

- The optimal arousal zone is a **window of tolerance** for the range of **emotional and physiological activation** we can tolerate without becoming dysregulated.
- Trauma narrows our window of tolerance.

Optimal Arousal Zone



Bi-phasic Trauma Response (Problematic)



RELATIONAL ATTUNEMENT

“The emotional regulatory activity of one person’s nervous system affects the emotional regulatory system of another’s. The arousal, thoughts, emotions and actions of one individual can affect the internal regulation of another.”

~ Diana Fosha, 2003

The healing journey can be influenced
by the power of just one
compassionate,
competent,
calm
and
attuned caregiver.



Through the mirror neuron system and right-brain to right-brain implicit non-verbal communication, we have the capacity to regulate and be regulated by one another.

Relational attunement is expressed and experienced non-verbally through visual and auditory signals indicating levels of arousal, linking the muscles of the face and the vagal regulation of the heart. Right brain to right brain hemispheric processing enables us to decode one another prior to cognition through

gesture

posture

eye contact

tone and volume of voice

micro facial expressions

speech rhythm and rate

body movement

prosody

To work effectively with trauma or stress and to prevent burn out, the caregiver needs to strengthen their self regulation skills and know the “felt” difference between:

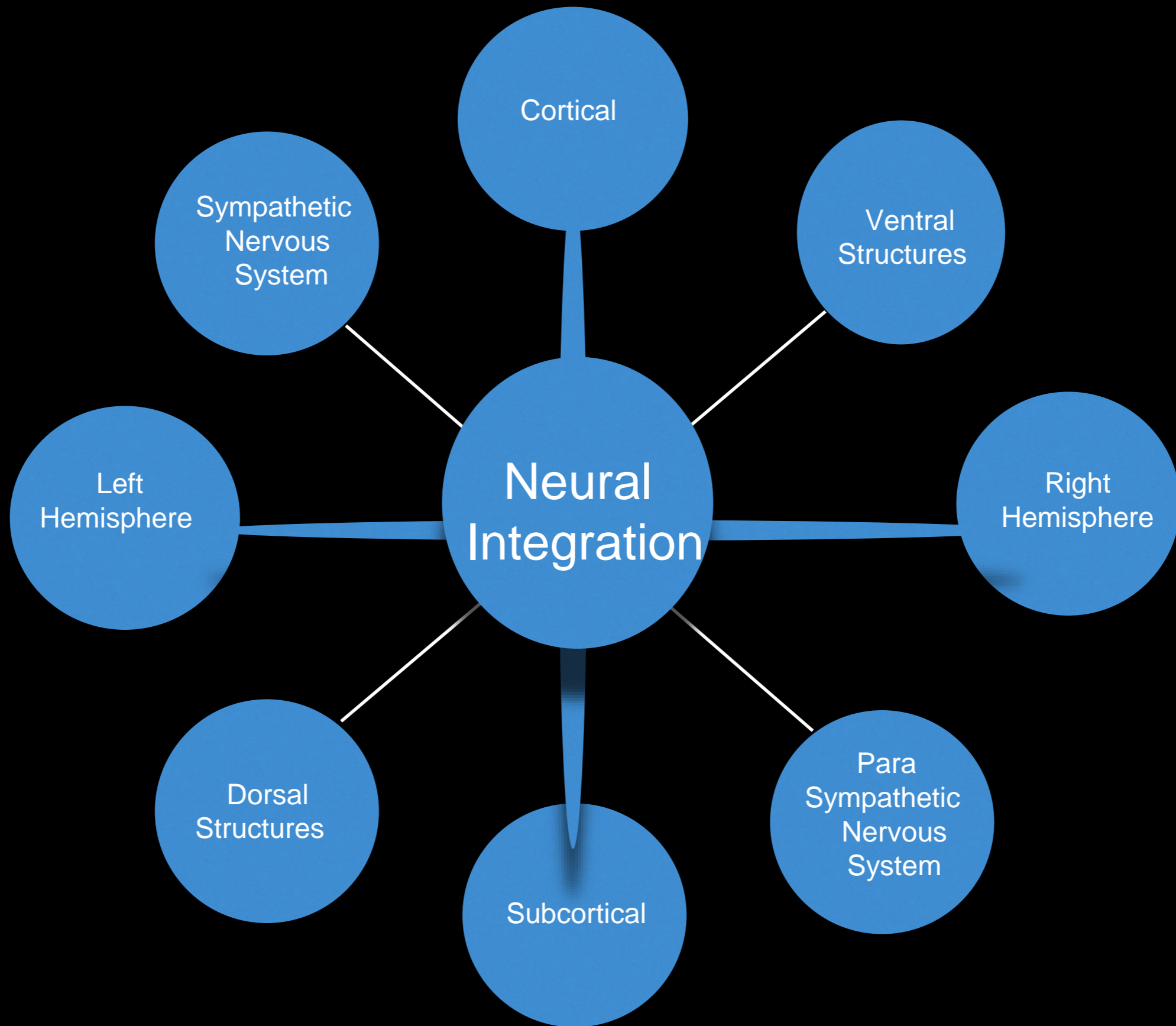
emotional contagion

empathy

and

compassion

NEURAL INTEGRATION



Neural Integration

- A flexible transfer of energy and information across all parts of the brain, allowing different parts of the brain to communicate and function together in an integrated way.
- Structurally characterized by a strong mid-prefrontal cortex.
- Activates the same neural mechanism as in “secure attachment” and the long-term application of the practices of mindful awareness and compassion meditation.

Characteristics of Healthy Neural Integration

- Emotional regulation
- Physiological regulation
- Emotionally attuned interpersonal communication with others (often involving eye contact)
- Response flexibility - the ability to shift attention from foreground to background, to take in new information and tolerate the unknown
- Internal self-awareness- noticing sensations, arousal, images, feelings and thoughts (meta-processing, mindfulness, mentalization)
- Coherency of the autobiographical narrative
- Morality, impulse control and pro-social behavior
- Predicts “secure attachment” in children, the capacity for connection
- Resiliency

Contemplative Based Trauma and Resiliency Training

Pathways to Neural Integration

Secure Attachment. Secure attachment, in turn, supports self-regulation. creates a secure base and makes healthy relationship possible. Feeling a sense of connection strengthens a felt-sense of belonging, safety and this increases self-regulation

Mindful Awareness is defined by non-judgmental attention to sensation, images, thoughts and feelings (SIFT) in the present moment. Mindful awareness increases attention control, emotional regulation and self-awareness- key features of self-regulation

Sensory Stabilization sensory awareness of affect, arousal and sensation in the present moment

Compassion Training strengthens neural plasticity, positive affect, self-regulation, pro-social behavior and optimal coping in working with distress in self/others

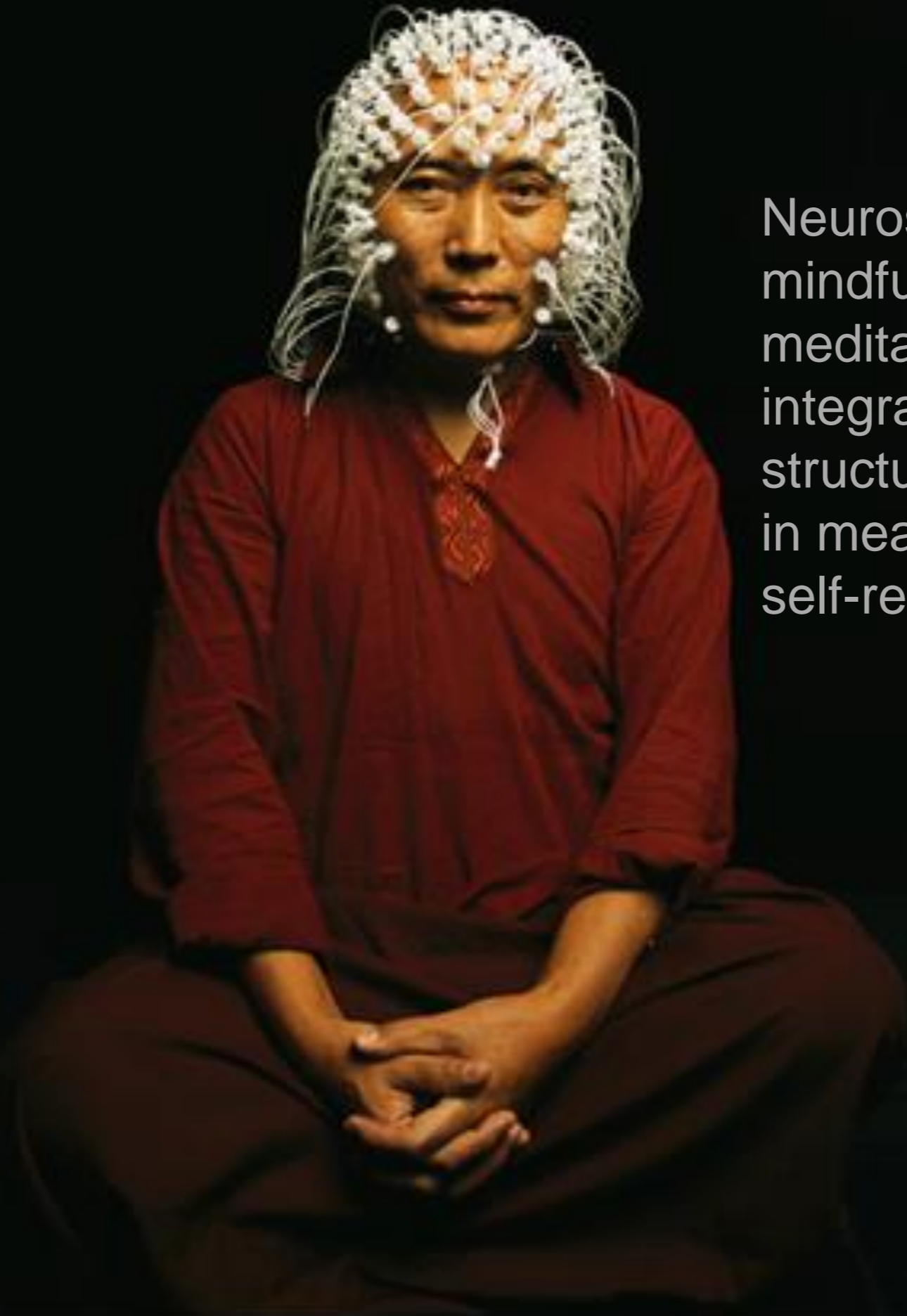
SECURE ATTACHMENT



MINDFUL AWARENESS

What is Mindful Awareness?

- Compassionate non-judgmental observation of the moment-to-moment experience
- Attention to sensation, images, feelings and thoughts as they occur (SIFT)
- Non reactivity, not clinging to judgments
- Noticing the present moment
- Awareness and acceptance of our own experience
- The ability to become aware that the mind has wandered and return again and again to the present



Neuroscience research indicates mindfulness and compassion meditation strengthen neural integration and change the structure and function of the brain in measurable ways, increasing self-regulation and well being.

Photograph by Cary Wolinsky

The German Study- The Mindful Therapist

Psychotherapists who underwent brief mindfulness meditation training had significantly higher therapeutic outcomes in a randomized, double blind, 9 week controlled study of 124 patients across the following symptom areas:

- somatization
- anxiety
- social insecurity
- obsessiveness
- anger/hostility
- paranoid and psychotic thinking
- phobic anxiety

S.Karger AG, Basel, 2007

A study on Mindfulness Based Cognitive Therapy with combat veterans with PSS conducted by VA Ann Arbor and U of Michigan showed a 73% decrease in symptoms compared to a 33% decrease with the control group after an eight week course.

The biggest change included the reduction of avoidance symptoms, self blame and the perception of the world as dangerous.



la vie n'est pas à p

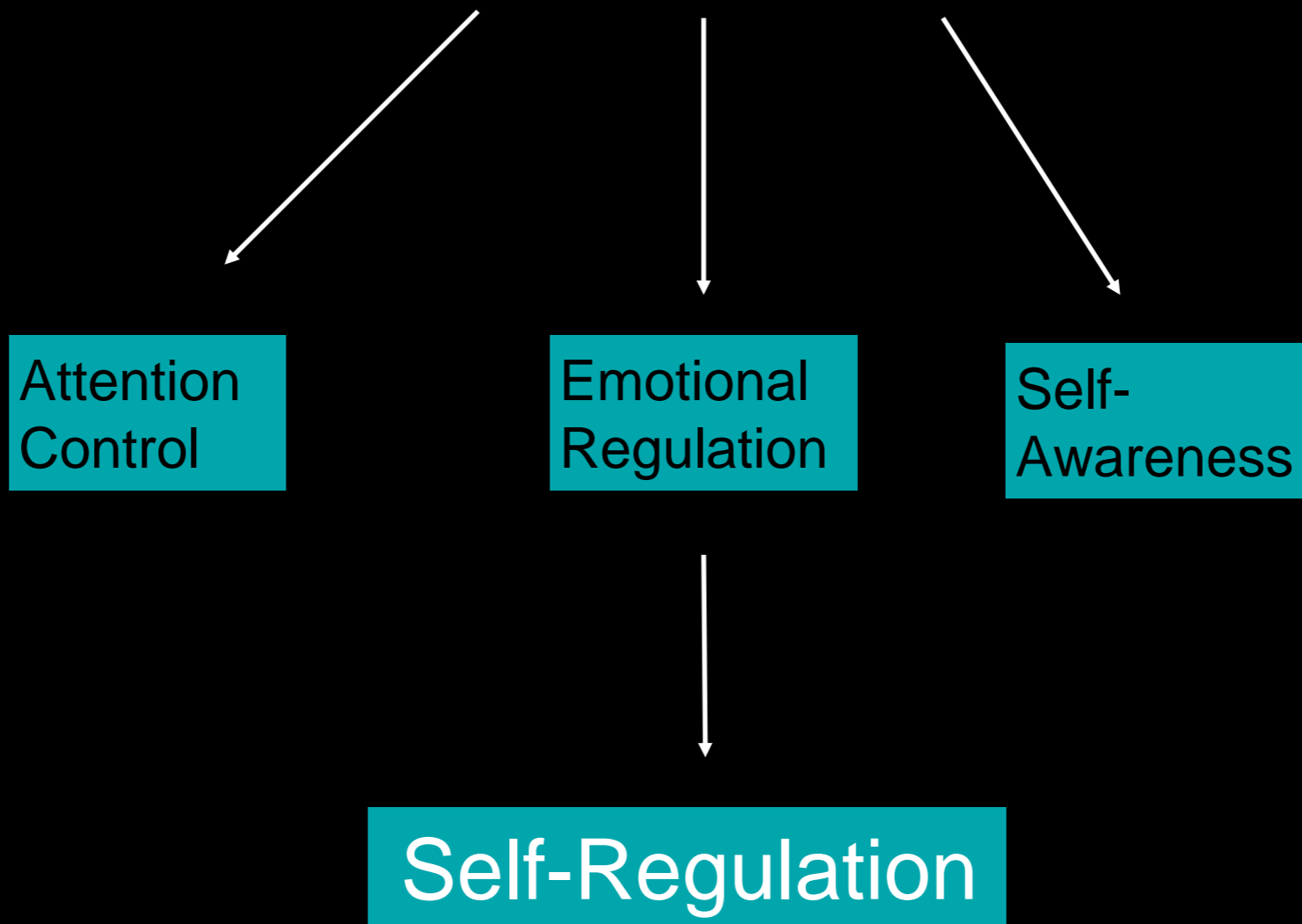
Mindfulness Meditation

Attention
Control

Emotional
Regulation

Self-
Awareness

Self-Regulation



Mindful Awareness Increases Self-Regulation

- decreased reactivity to inner experience
- increased attention and differentiation of sensation, images feelings, and thoughts
- actions driven by explicit awareness than unconscious impulses and automatic habits
- increased ability to communicate experience with language
- the capacity to experience a space between the self and traumatic memory or arousal states
- strengthens capacity to move from one executive system to another

Executive Systems

An executive system is a neural network that directs our attention, thoughts and actions in each moment.

The greater our mindful awareness the greater our ability to notice which executive system is in charge at any moment and to move from one to another.

There are three executive systems.

1. Amygdala Network – enables rapid response to immediate threat. At higher levels of stress, the brain moves to this network.

2. Frontal Cortex network – without trauma, we mostly operate from this executive system, enabling sequencing of experience in the here and now, as opposed to reflexive response.

2. Medial Brain Structures network – Default Mode Network is active when we are connected and attuned to other.

Mindful awareness harnesses the same neural mechanisms as secure attachment.

~ Daniel Siegel, MD 2007

SENSORY STABILIZATION

Sensory Stabilization is the sensory awareness of affect, arousal and sensation in the present moment which is central to self-regulation.

Breath-work

Breath-work is central to changing our arousal system.

Breath-work makes breathing a therapeutic tool, reducing stress and increasing energy.

By shifting our focus to the exhale, we can calm our central nervous system.

Grounding

Grounding practice provides physical and psychological sense of “self-support” that feels solid and stable.

1. We connect with our somatic experience in the moment
2. We become aware of physical sensations in our body
3. We learn what our sensations signal tell us about our experience

Embodied Mindful Awareness

Embodied Mindful Awareness emphasizes rhythmic physical movement and increases sensory integration.

We notice our experience in the moment, each moment changes

We ask “how does my body feel doing this at this moment in this place?”



COMPASSION CULTIVATION TRAINING



Compassion Fatigue is Empathy Fatigue

The areas of the brain activated by distress in patients activate the same areas in caregivers. The neural network underlying empathy triggers sadness and pain, creating secondary traumatic stress and burn out.

Compassion training creates functional neural plasticity and associated changes in positive affect, providing a new coping strategy when confronted by the distress of others.

Tania Singer
Director of Social Neuroscience,
Max Plank Institute (2012)

Figure 1

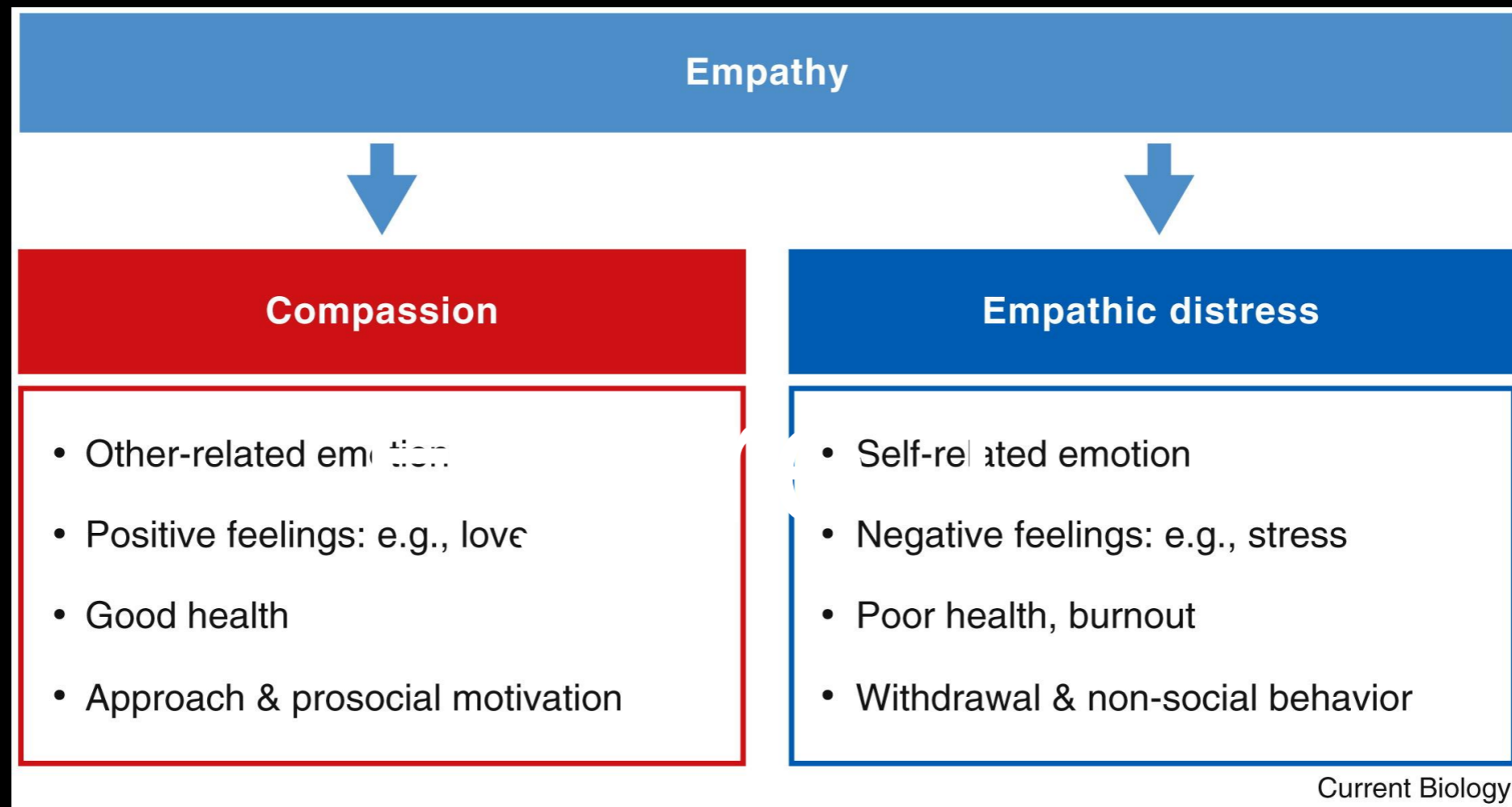
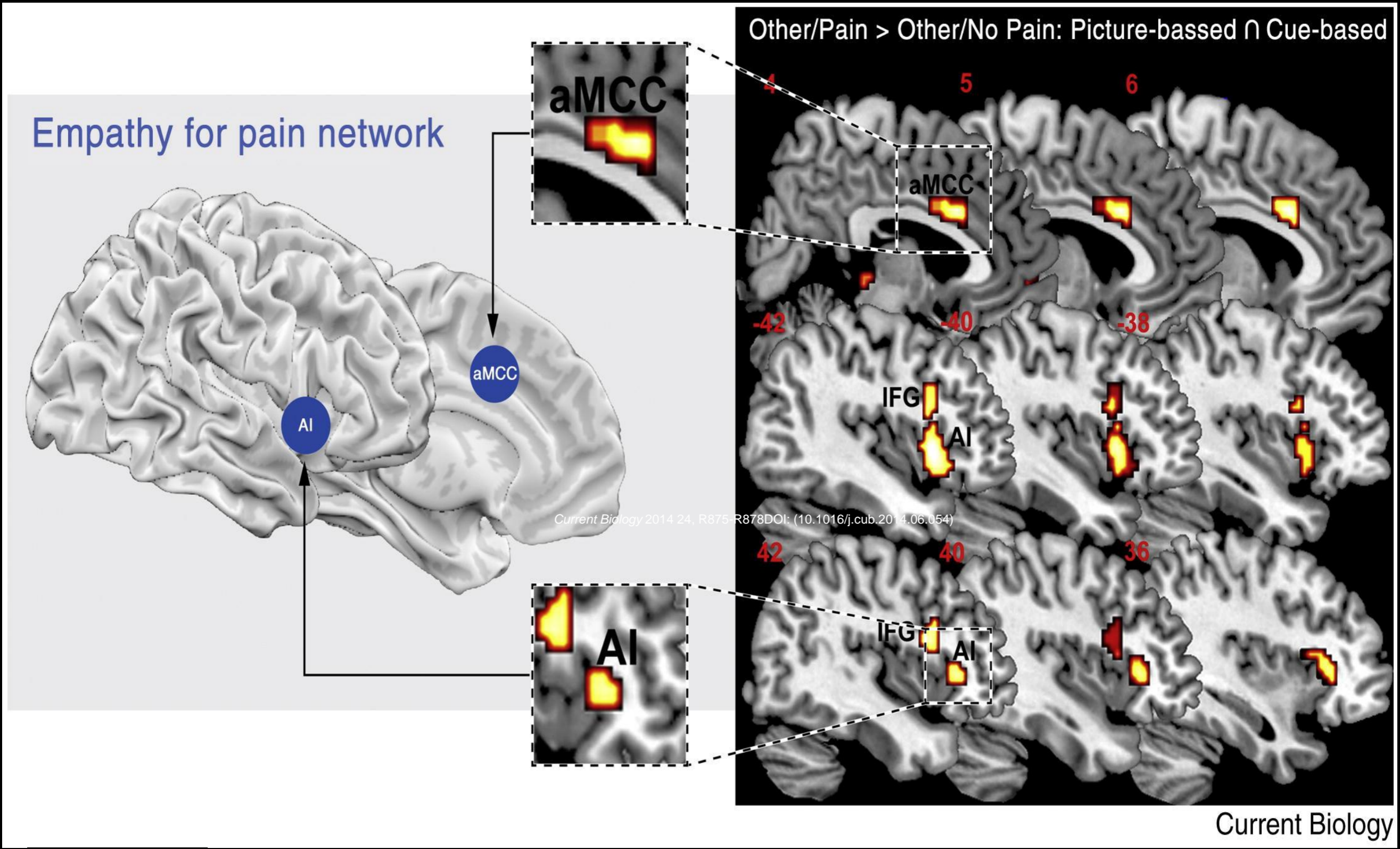


Figure 2



Compassion Cultivation Training

- provides a powerful coping strategy for suffering
- improves empathic accuracy
- increases ability to read facial expressions, a key to social relatedness
- reduces emotional distress
- increases positive affect and mood
- enhances physical resilience in response to stress
- strengthens feelings of warmth and care to others
- strengthening self-compassion

Characteristics of Self-Compassion

- An attitude of kindness and understanding towards one's self as opposed to judgment
- Perceiving one's experience as part of the larger human condition
- Being able to tolerate and be mindful of painful experience without over-identifying or avoiding

Clinical Considerations

Increases in self-compassion over one month reduced symptom severity and decreased depression, anxiety, rumination, thought suppression and the need to avoid.

Neff, Kirkpatrick, Rude 2007

Individuals high in self-compassion engage in less avoidance strategies following trauma exposure, allowing for a natural exposure process.

Thompson, Waltz 2008

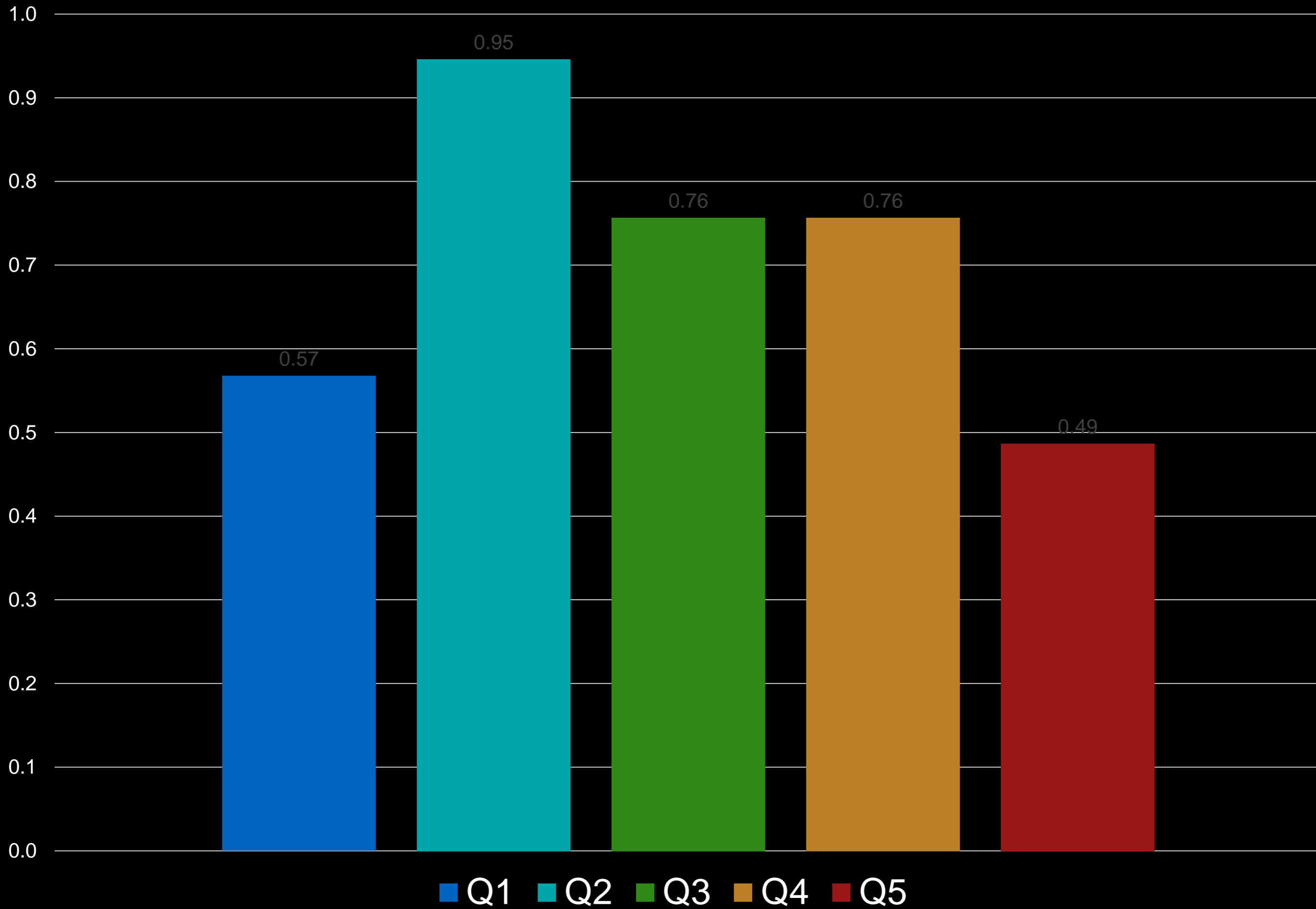
2017 Portable Calm Online Pilot Study

The World Health Organization (WHO) Well-Being Index was administered pre and post CBTRT training to participants in four online groups.

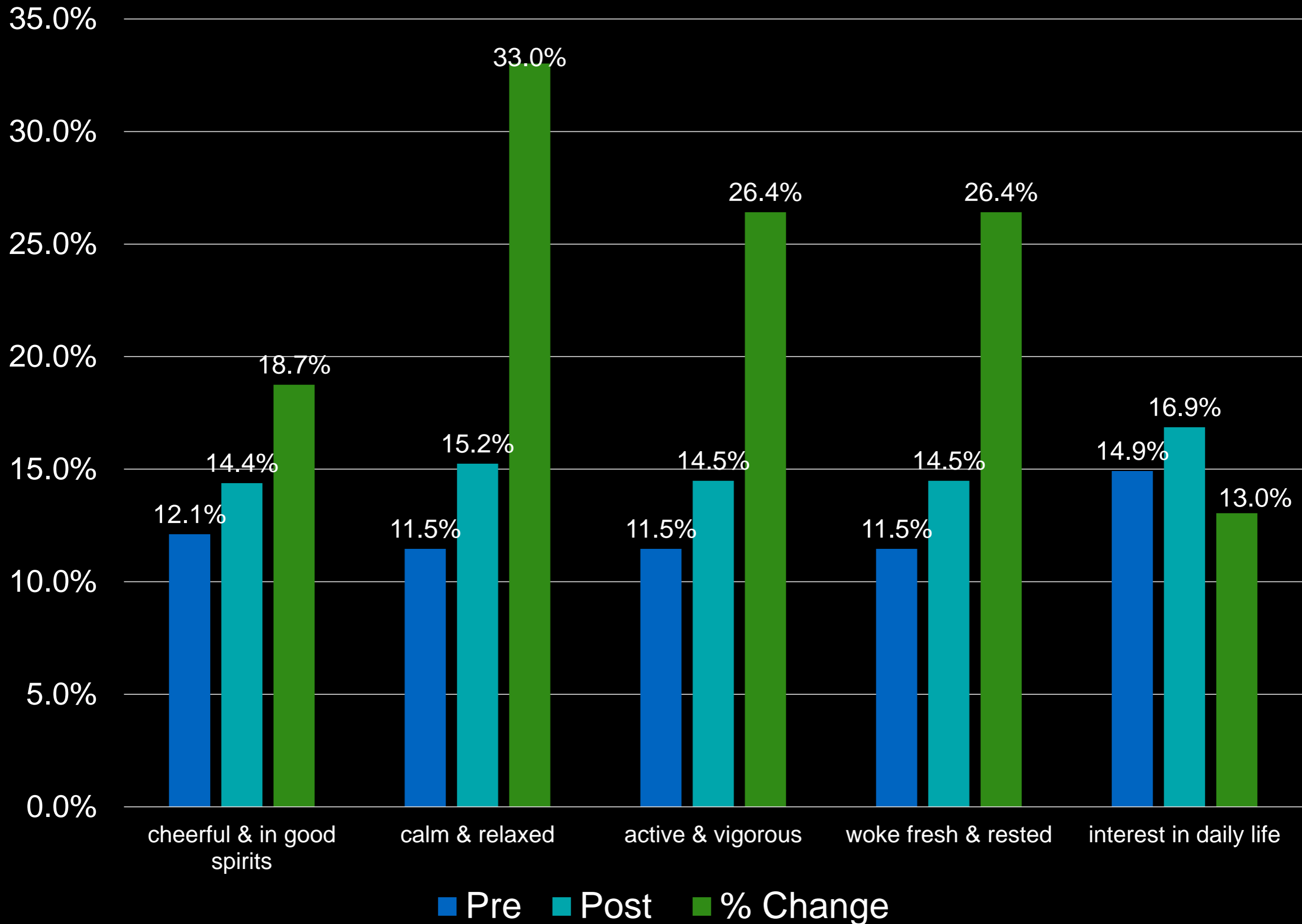
WHO-5 WELLBEING INDEX

1. I have felt cheerful and in good sprits
2. I have felt calm and relaxed
3. I have felt active and vigorous
4. I woke up feeling fresh and rested
5. My daily life has been filled with things that interest me

Overall Average Item Improvement (n=37)



Overall Average Item Pre/Post Scores & % Improvement





Clearing

Do not try to save the world or do anything grandiose
Instead, create a clearing in the dense forest of your life
and wait there patiently,
until the song that is your life
falls into your own cupped hands
and you recognize and greet it.
Only then will you know how to give yourself
to this world
so worthy of rescue

Martha Postlewaite

References

- Badenoch, B. & Cox, P. (2010) Integrating interpersonal neurobiology with group therapy. *International Journal of Group Psychotherapy*. 60(3): 462-481.
- Cozolino, L. (2002) *The neuroscience of psychotherapy: Building and rebuilding the human brain*. New York, NY: Norton.
- Fosha, D. (2003) Dyadic regulation and experimental work with emotion and relatedness in trauma and disorganized attachment. In M.F. Solomon & D. J. Siegel (Eds.), *Healing trauma* (pp. 221-281). New York, NY: Norton.
- Grepmaier, L., Mitterlehner, F., Bachler, F., Rother, W., & Nickel, M. (2007). Promoting mindfulness In psychotherapists in training influences the retreat results of their patients. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/17917468>
- Levine. P. (1997). *Waking the Tiger: Healing trauma*. Berkeley, CA: North Atlantic Books.
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body*. New York: Norton.
- Porges, S. (2013). *Beyond the Brain: How the Vagal System Holds the Secret to Treating Trauma*. National Institute for the Clinical Application of Behavioral Medicine. Retrieved from <http://www.nicabm.com>
- Rothschild, B. (2003). *The body remembers: The psychophysiology of trauma and trauma treatment*. New York, NY: Norton.
- Singer, T. & Klimeck, O. (2014) Empathy and compassion. Retrieved from <http://dx.doi.org/10.1016/j.cub.2014/06.054>
- Tollison, P., Synatschk, K., & Logan, G. (2011). *Self-regulation for Kids K-12: Strategies for calming minds and behavior*. Austin, TX: PRO-ED.