



Please
Silence your phone

- Grab some food
- Take a seat close to the center of your row. 😊

The Healing Space



NEUROHEALTH

Don't just survive, THRIVE!

Allen L. Gee, MD, PhD, FAAN

Frontier Neurohealth

Objectives

- What is Neurohealth
- What is Neurodysregulation and Integrative NeuroHealth
- Integrative NeuroHealth and the community

Claude Bernard

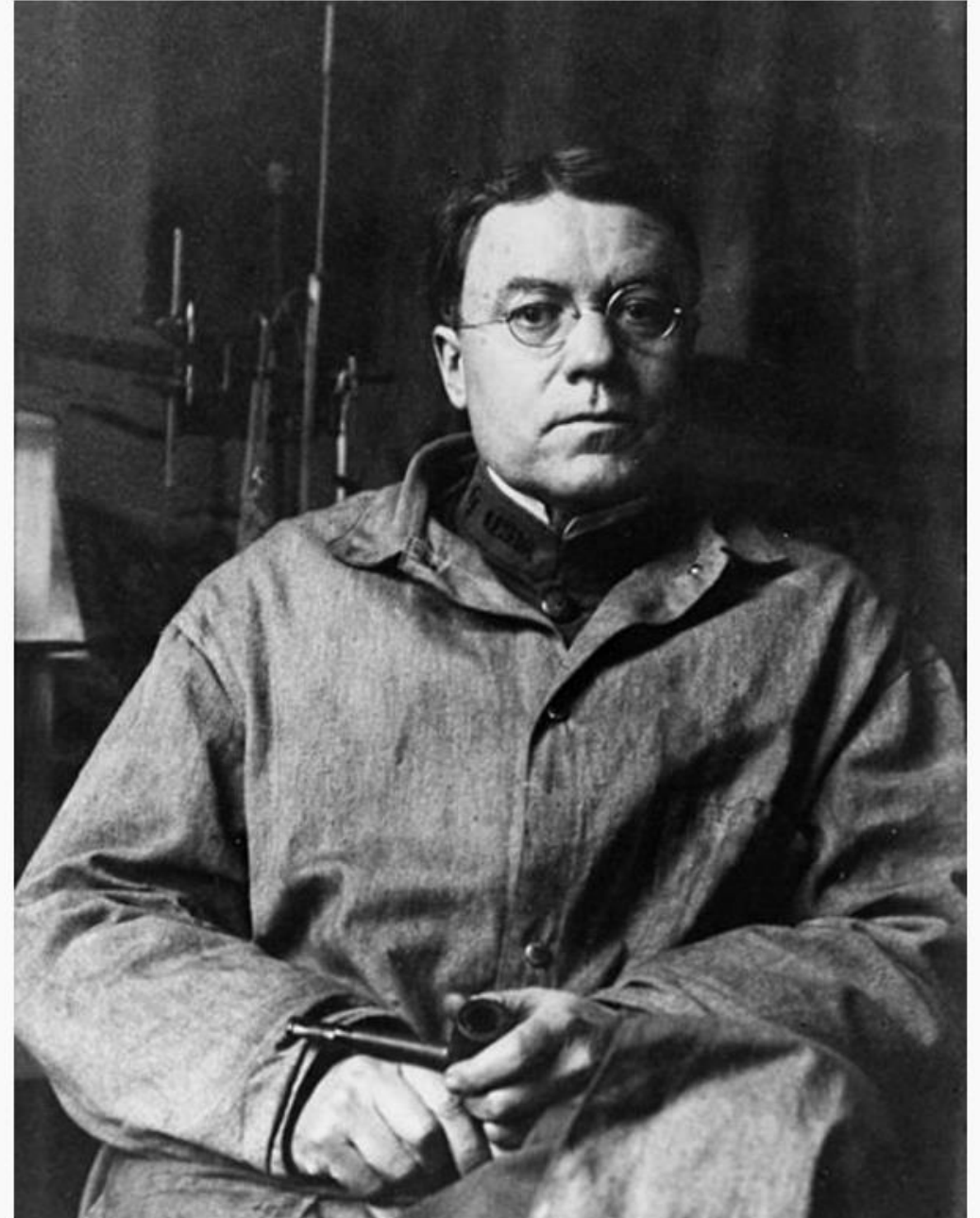
Milieu Interieur

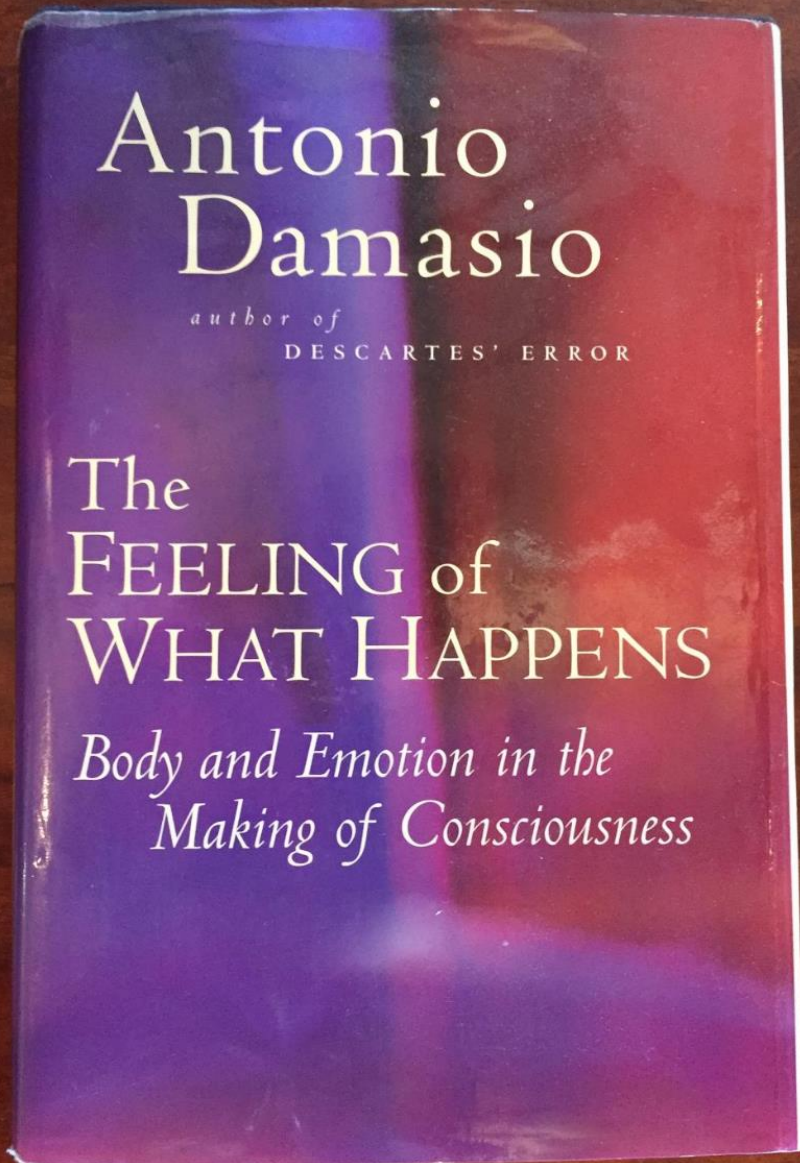
He originated the term *milieu intérieur*, and the associated concept of homeostasis (the latter term being coined by Walter Bradford Cannon).



Homeostasis

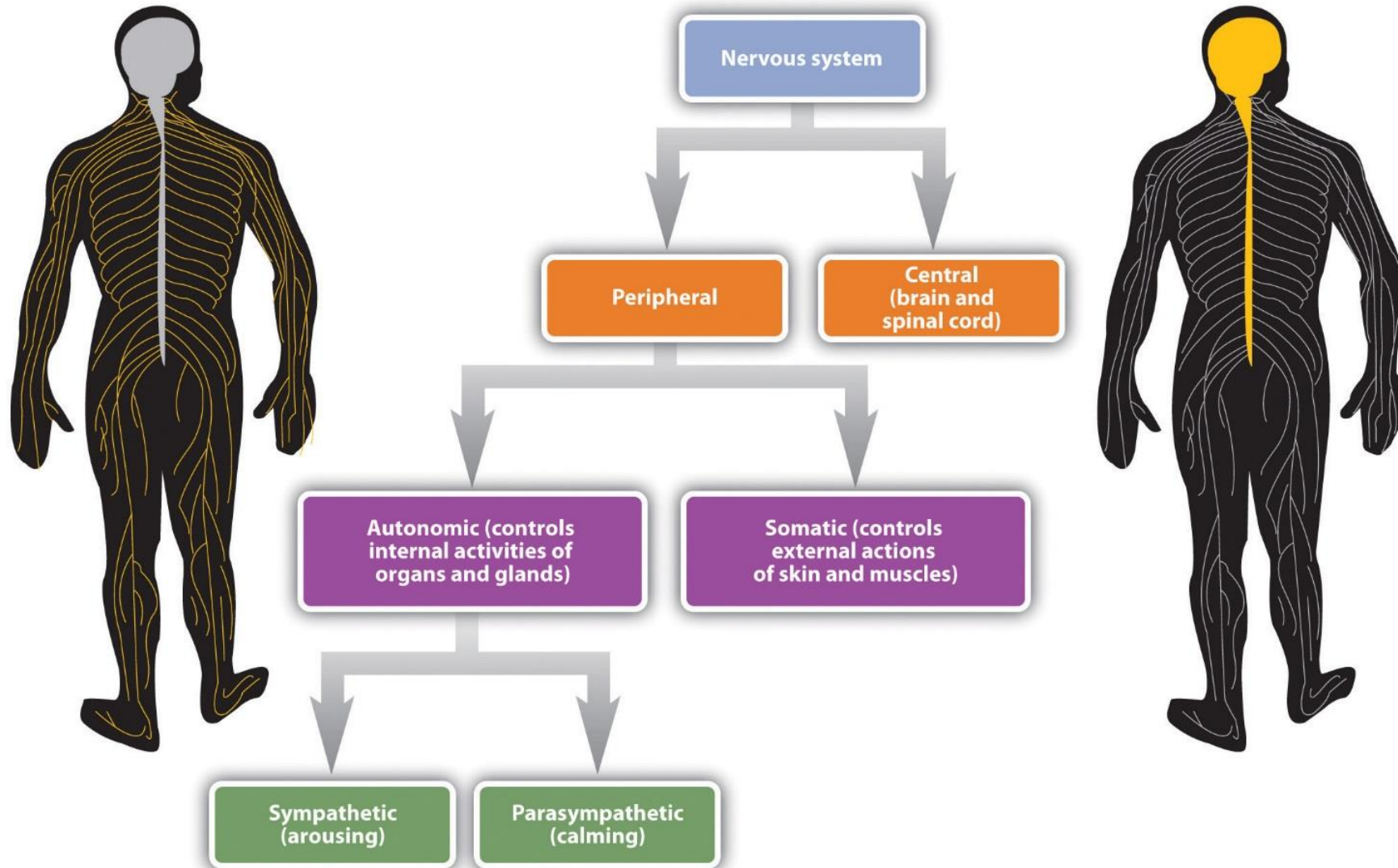
The **fight-or-flight response** (also called the **fight, flight, freeze, or fawn response** in [post-traumatic stress disorder](#), **hyperarousal**, or the **acute stress response**) is a physiological reaction that occurs in response to a perceived [harmful event](#), [attack](#), or threat to survival





- To be conscious *of* anything the brain must have a sense of self and be in a relatively high state of arousal (sometimes called *vigilance*), whether in wakefulness or REM sleep. Brain arousal level fluctuates in a circadian rhythm but may be influenced by lack of sleep, drugs and alcohol, physical exertion, etc.

The Nervous System



NeuroHealth

- “Neurohealth,” coined by AAN members, refers to optimized nervous system function & brain health.
- NeuroHealth is health
- Sleep, Movement, Nutrition, Mindfulness

Foundations of NeuroHealth



NEUROZONE®
RESILIENCE
INDEX



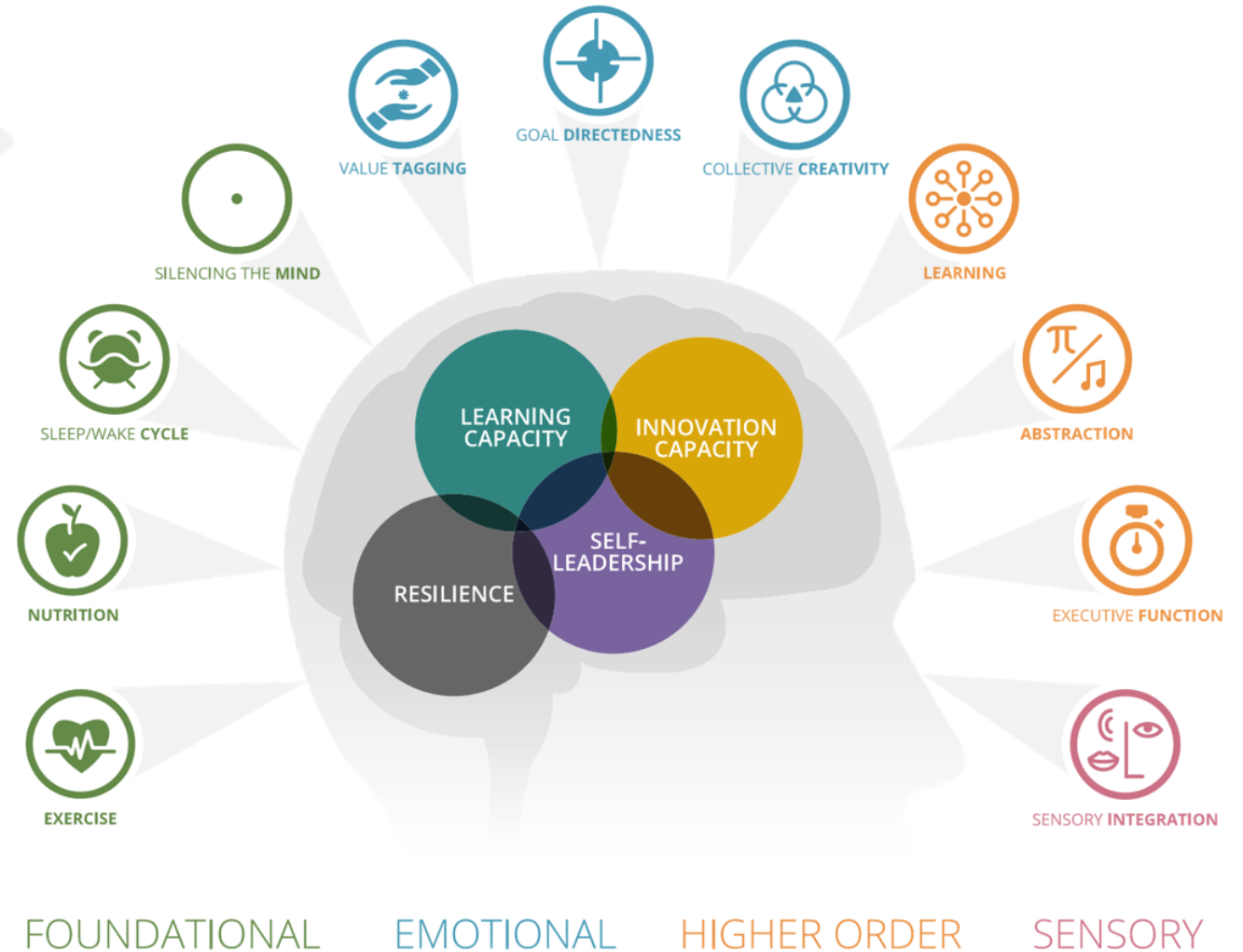
NEUROZONE®
SELF-LEADERSHIP
INDEX



NEUROZONE®
LEARNING CAPACITY
INDEX



NEUROZONE®
INNOVATION CAPACITY
INDEX



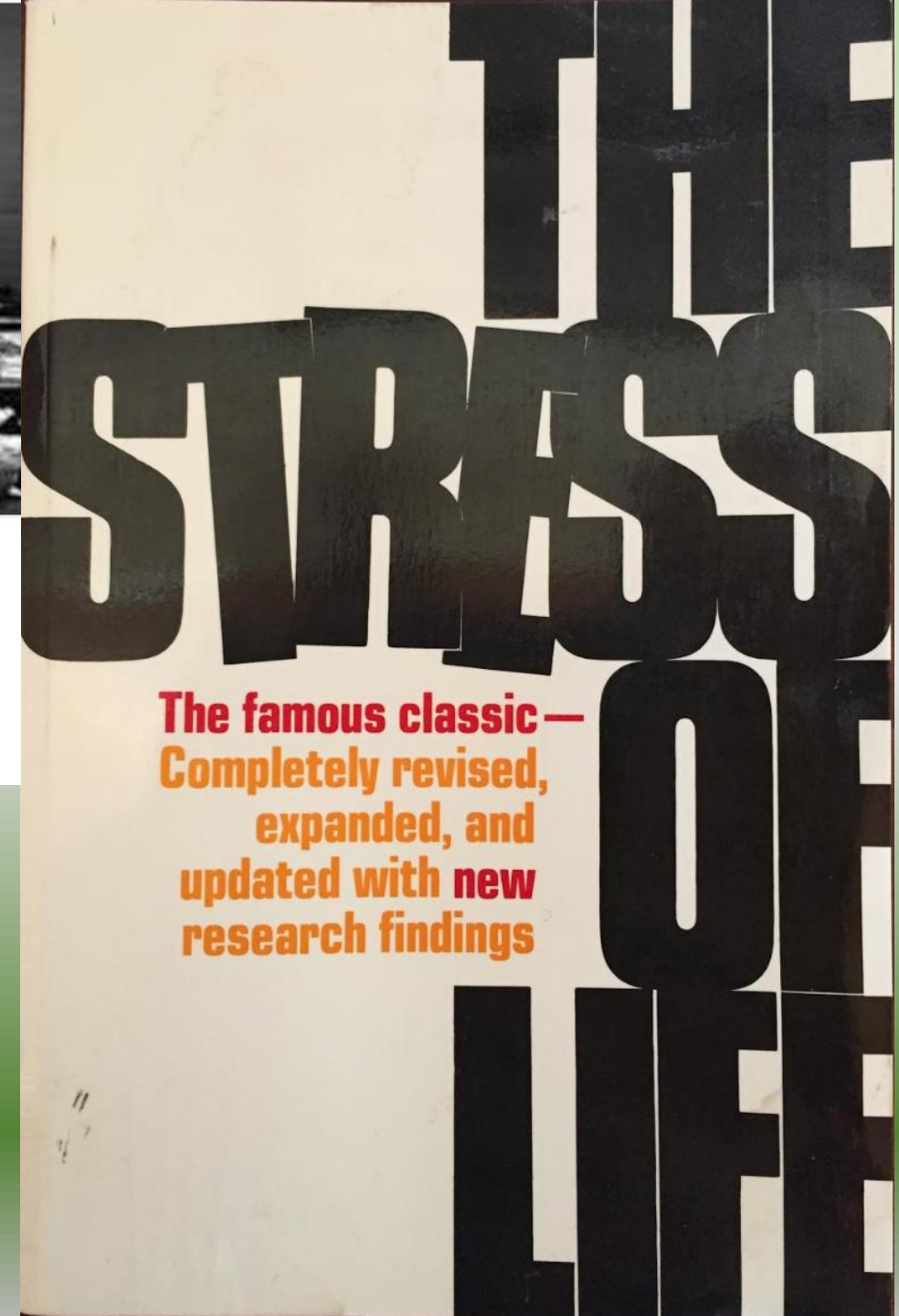
NeuroDysregulation

Hans Selye



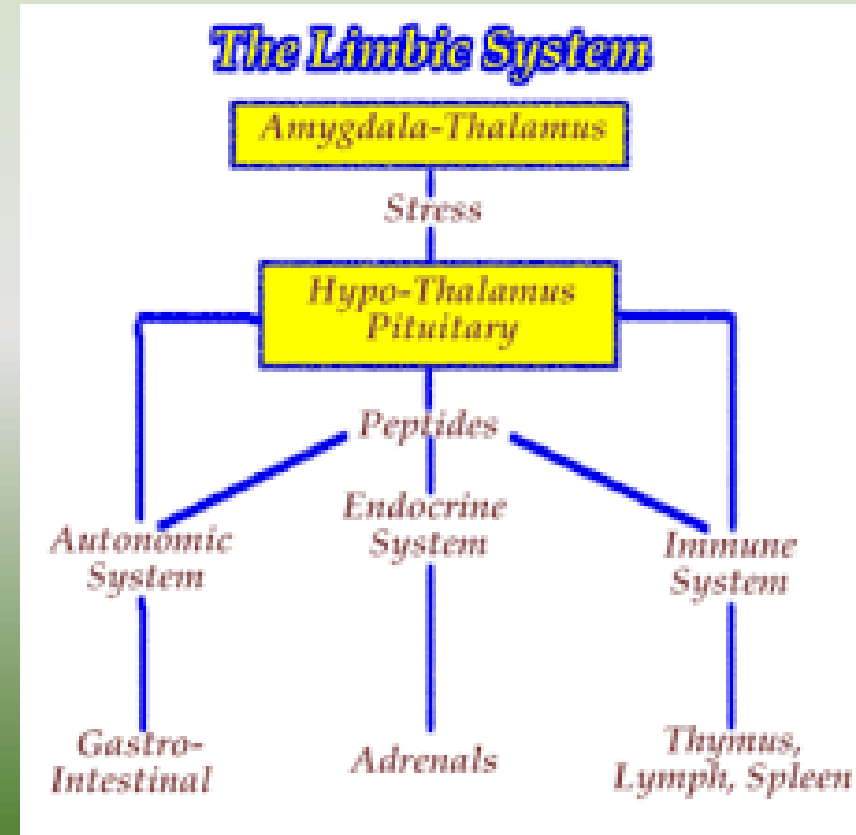
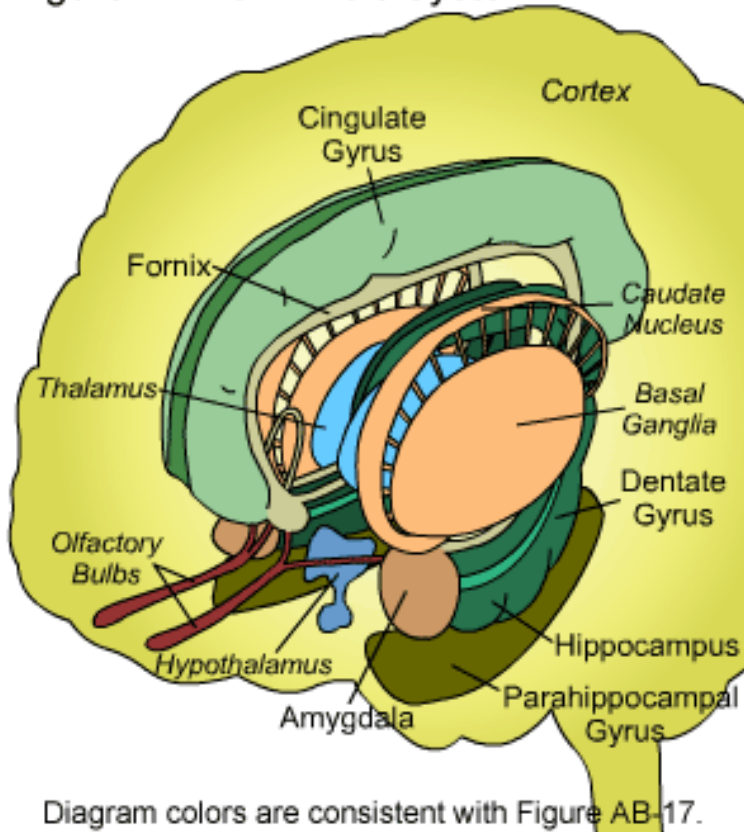
János Hugo Bruno "Hans" Selye, CC, was a pioneering Austrian-Canadian endocrinologist of Hungarian origin. He conducted much important scientific work on the hypothetical non-specific response of an organism to stressors. [Wikipedia](#)

Eustress vs Distress
Intensity as well as duration



Neurodysregulation Limbic System

Figure AB-16: Limbic System



Nerves which fire together, wire together

Heraclitus

You cannot step twice in the same river.

Alfred, Lord Tennyson "Ulysses"

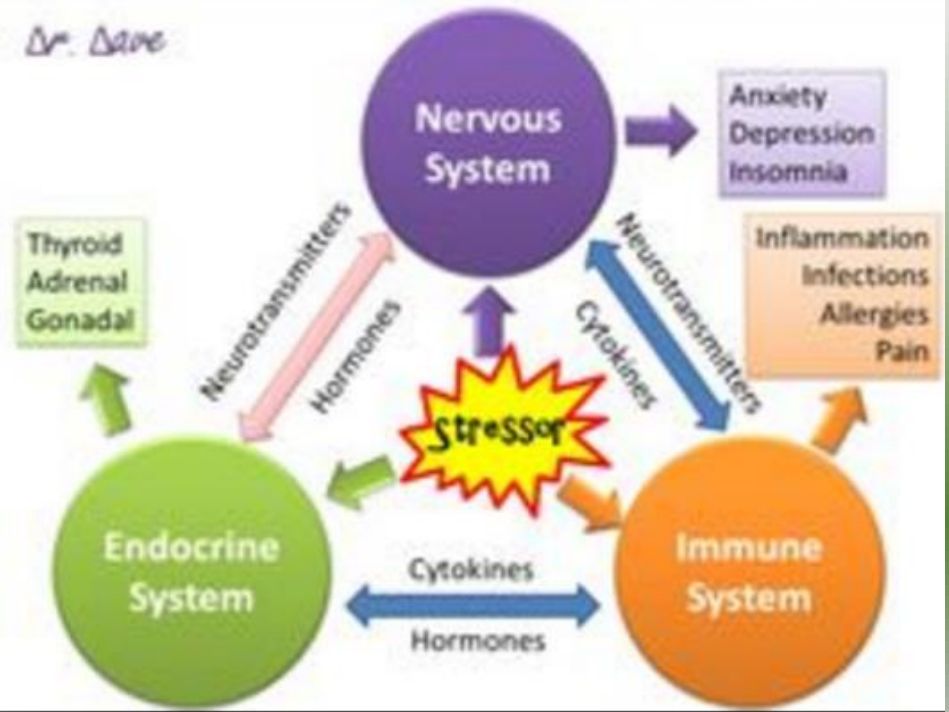
I am a part of all I have met

PSYCHO- NEURO- IMMUNOLOGY



A Framework for
Understanding
the Pieces of
Your Puzzle

Dr. Dave

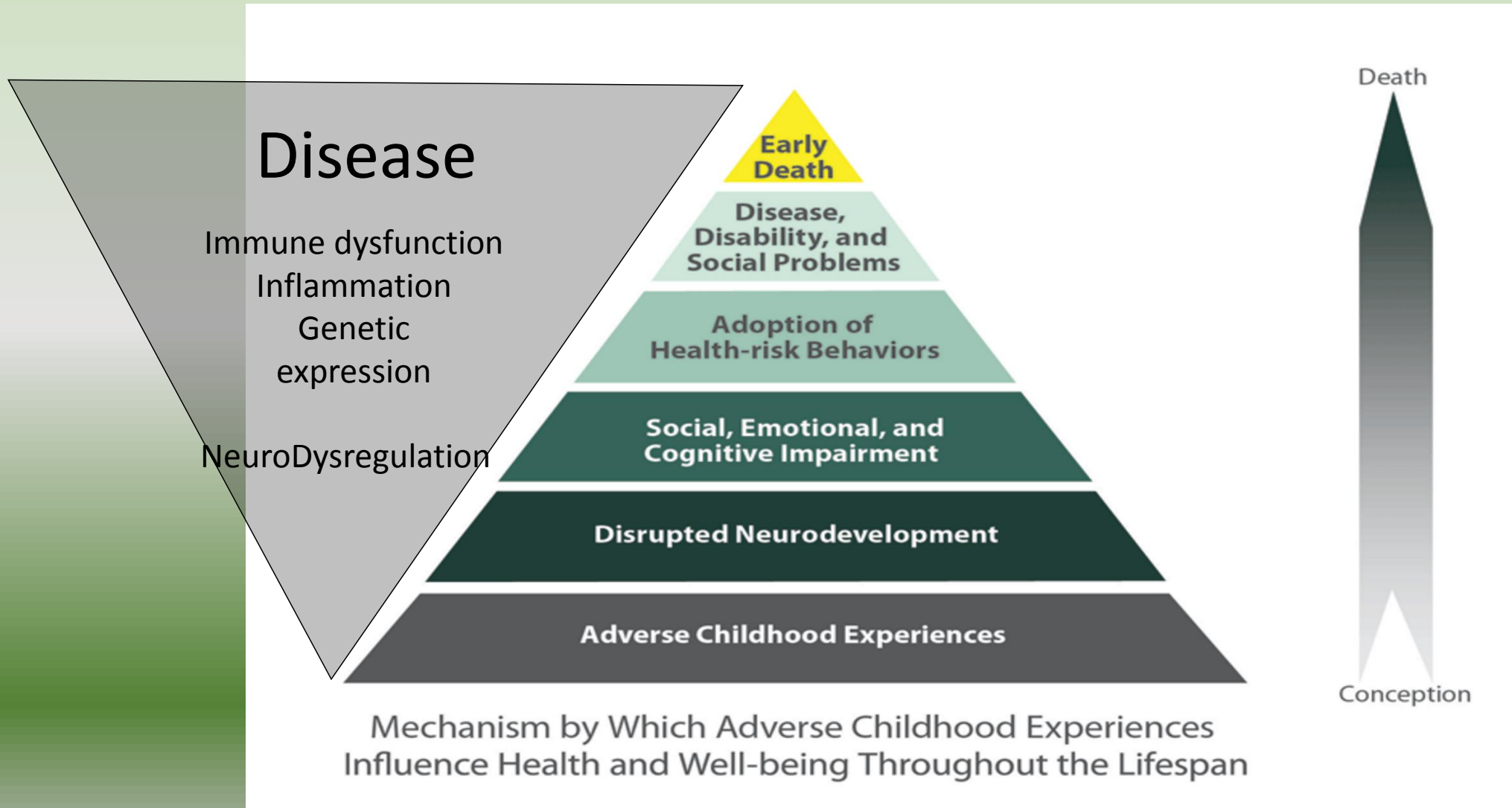


Adverse Childhood Experiences and Disease

- Increased ACE score associated with increased rates
 - Depression
 - Obesity
 - Autoimmunity
 - COPD
 - ETOHism
 - Inflammation
 - Hepatitis
 - Sleep disorder
 - Cancer
 - Metabolic syndrome
 - HTN, DM, Hypercholesterolemia



Adverse Childhood Experiences



healing spaces

THE SCIENCE OF PLACE
AND WELL-BEING

ESTHER STERNBERG, M.D.





Sleep



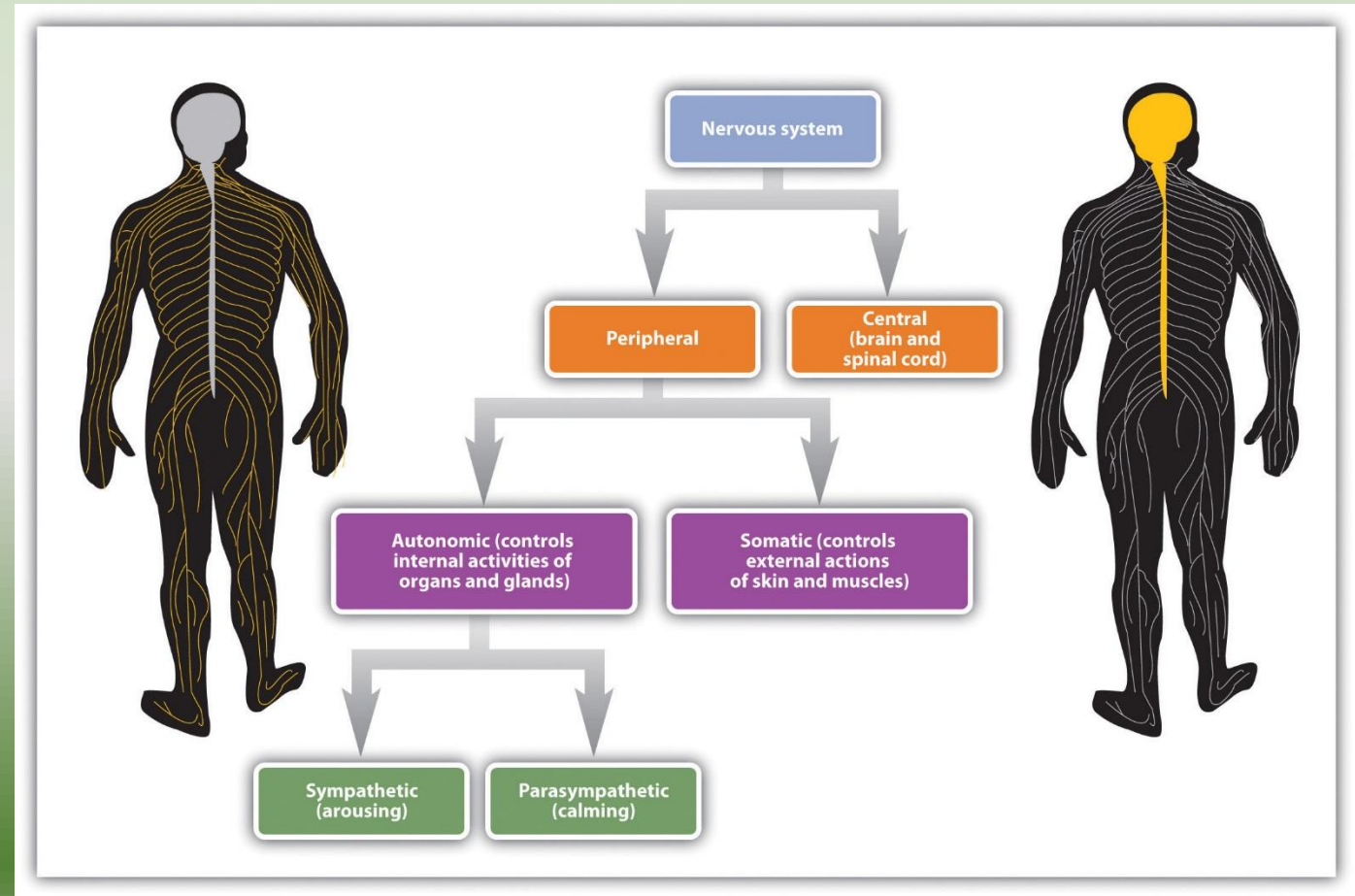
Movement

- Yoga has been shown to lower stress, blood pressure, and heart rate. (Mayo Clinic) It also cultivates a positive body image and a greater sense of mindfulness. (Harvard Health Publications)
- Early research on complementary therapies such as yoga and meditation suggests improvement in memory, attention and psychological well-being; movement therapies may promote balance. Studying these therapies and underlying mechanism can shed new light into the human nervous system potential



Mindfulness

- Mind-Body Connection
- Emotional Self-Regulation
- Teachable and Learnable Life Skills
- Communication
- Counseling
- Value-tagging
- Collective creativity
- Goal directedness



Nutrition

- Various studies have proven that white cells respond to food intake, the environment, physical activity, and emotional state. (Dr. David Servan-Schreiber)
- Diet can promote or decrease inflammation. Inflammation can, in turn, drive up the risk of cancer, increase atherosclerotic diseases such as heart attacks and stroke and autoimmune disease. Inflammatory cytokines can even affect our perceptions and cognition. Diet modification is one tool to improve our internal physiology.



(Andrew Weil M.D.)

Integrative NeuroHealth

- Healthcare
- Business
- Performance
- Education



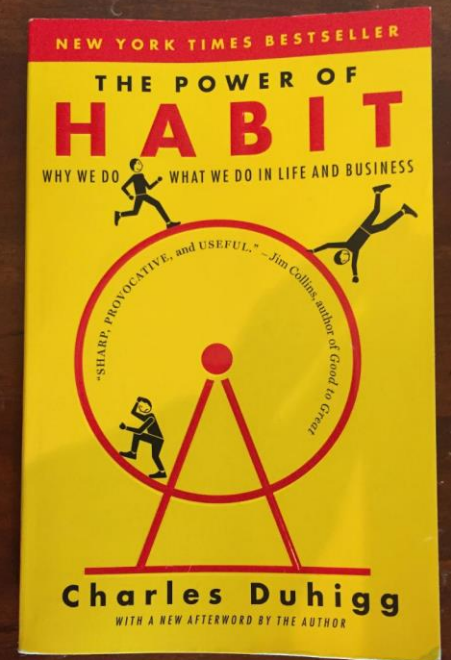
Healthcare

- Pain
- Addiction
- Resiliency in Patients and Providers
 - Patient engagement
 - Improved Experience, Improved Health Populations, Reduced Costs
- Prevention and Health Promotion
- Patient-Centered Care
- Stress Reduction/Burnout



Business

- Employee wellbeing, engagement, and satisfaction
- Life/Work Balance
- Productivity/Efficiency
 - Google work group study



Performance

- Athletics
“in the zone”
- “Flow” States
Mihaly
Csikszentmihalyi



Education

- Socratic Method
- Test Anxiety
- High Stress situations
- Student wellbeing



Emotional Regulation is a Common Denominator

- Communication is key
- Need to feel safe
- No triggering
- Need be heard
- Need to be validated

Conclusions

- Neurodysregulation impacts the homeostasis and internal milieu
- Adverse internal environment increases disease susceptibility
- Integrative NeuroHealth positively impacts health, education, business and performance
- NeuroHealth is the foundation of Thriving

