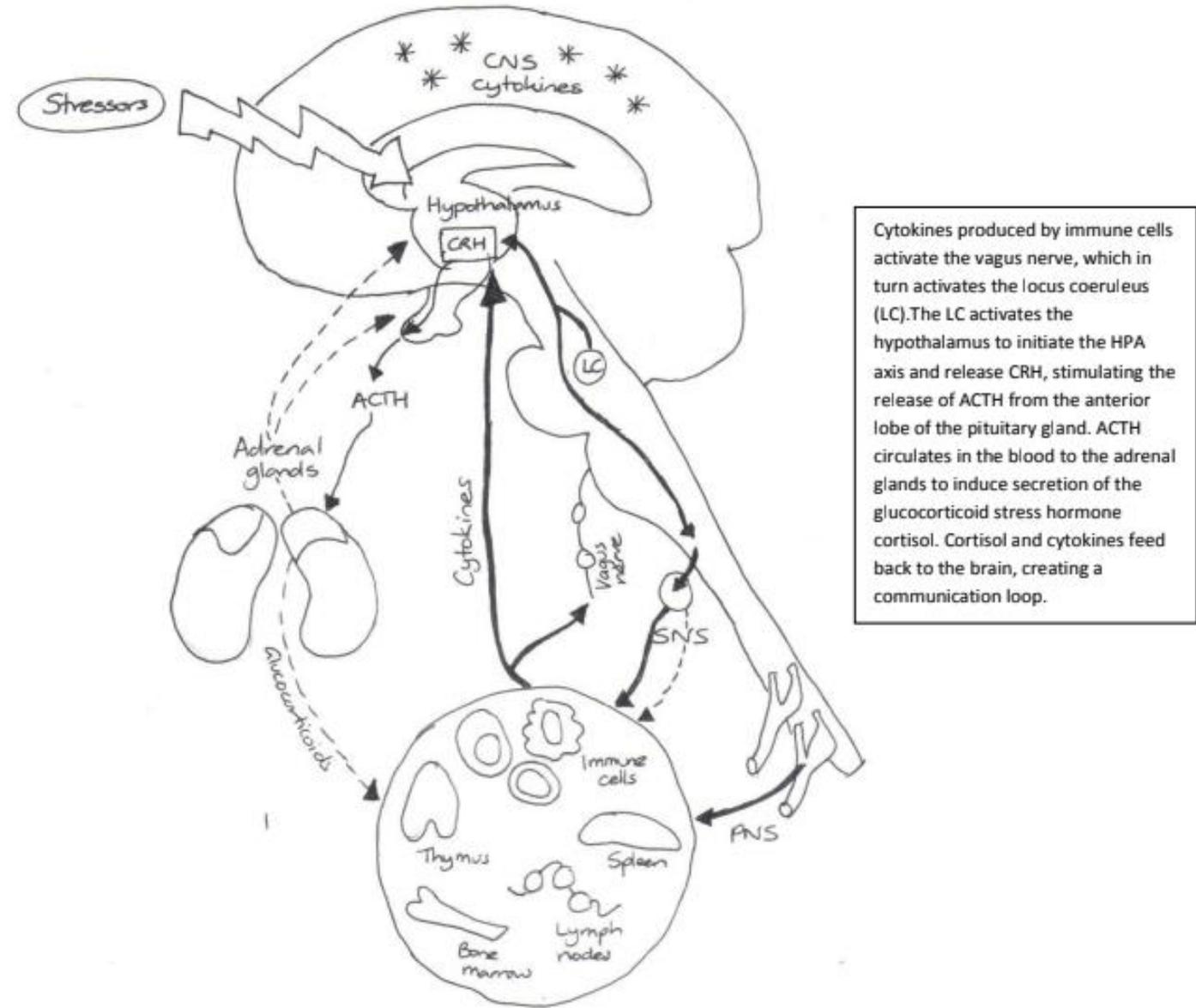




**STRESS, RESILIENCE &
MINDFULNESS**
**SAVINE STANDER
& JEAN SCHUTTE**

YOUR BRAIN (and other bits)



Cytokines produced by immune cells activate the vagus nerve, which in turn activates the locus coeruleus (LC). The LC activates the hypothalamus to initiate the HPA axis and release CRH, stimulating the release of ACTH from the anterior lobe of the pituitary gland. ACTH circulates in the blood to the adrenal glands to induce secretion of the glucocorticoid stress hormone cortisol. Cortisol and cytokines feed back to the brain, creating a communication loop.

Figure 2. Communication pathways between the brain and immune system. Adapted from "Neuroendocrine Regulation of Immunity," by J. I. Webster et al., 2002, *Annual Review of Immunology* 20(1), p. 127.

Resilience

- Adapting well in the face of adversity



APA Recommendations



MAKE CONNECTIONS



**AVOID SEEING CRISES
AS INSURMOUNTABLE
PROBLEMS**



**ACCEPT THAT CHANGE
IS A PART OF LIVING**



**KEEP THINGS IN
PERSPECTIVE**



**MAINTAIN A HOPEFUL
OUTLOOK**



**TAKE CARE OF
YOURSELF**

Positive psychological capital – Fred Luthans Professor of Management at the University of Nebraska–Lincoln



Hope



Self efficacy



Optimism



Resilience



Increased activity in an area of the brain that regulates emotion

=

- Reduction in 'overthinking' or obsessive thoughts
- Decrease in perceived physical pain



Increase in size of the area responsible for consolidating memory

=

- Better memory!

YOUR

BRAIN

ON

MINDFULNESS

YOUR SELF



Mindfulness

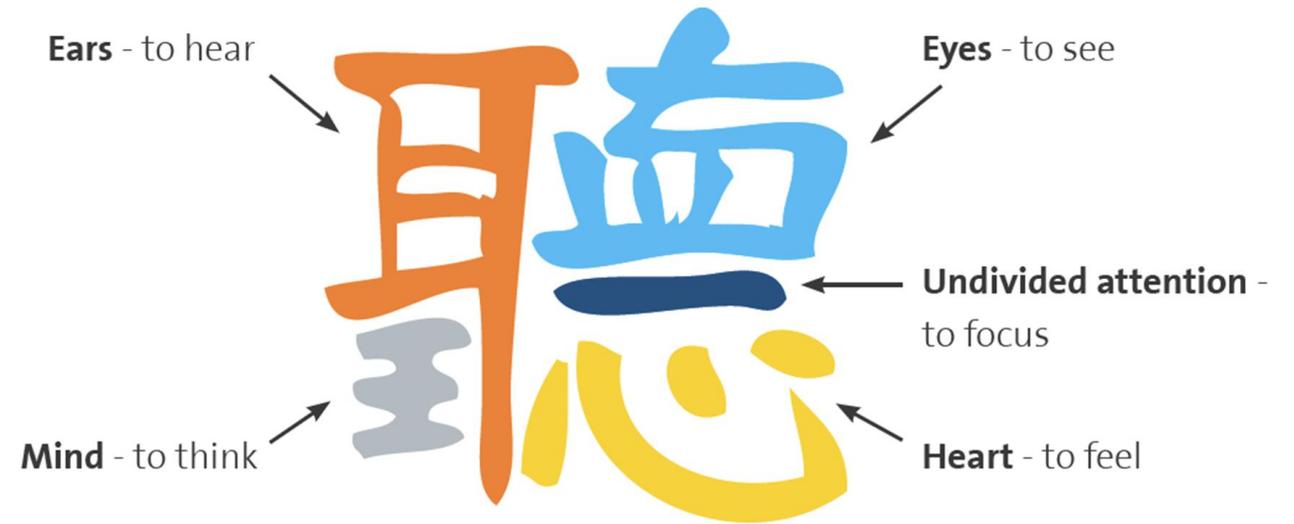


- Jon Kabat-Zinn
- International Conference on Mindfulness

Mindfulness at Work

INDIVIDUAL LEVEL

- Increased job satisfaction
Engagement, and Performance
- Reduced Stress.
- **LEADERSHIP LEVEL**
- Enhanced moral awareness and
Authentic leadership styles.



see Good et al (2016) Vich (2015) and Hyland et al. (2015) for reviews



MINDFUL EATING EXERCISE

Fruit, nut, sweet, chocolate