Self-Help Video #5 Part 1

“Face-Heart” and “Heart-Brain” Social Communication System

<https://youtu.be/qIJBl5-fqwA>

(Begin at 1:28 minutes to by-pass Medical Disclaimer)

Polyvagal theory is changing our perspective on how the three domains of the somatic, emotional, and mental function together. Termed by Dr. Porges: the social engagement system.

The muscles of the face are the only body muscles which insert directly into the skin, thus the outer skin reflects all movement of the facial muscles.

The vagus nerve branches throughout the facial muscles, and organs of vision, hearing, and vocalization.

Our skin movement, muscles, and sensory organs reflect the energetic state of our gut brain organs, for example, a stomach ache can be seen in facial expressions.

In the beginning of gestation, the heart is located in the neck area (pharynx, throat), connected to the vagus nerve.

 <https://pocketdentistry.com/2-development-of-the-head-face-and-mouth/>

The lengthening of the neck during development forces the heart to descend from the neck into the chest cavity.

In the fully developed human, the vagus nerve reaches from the head senses through the gut organs and ends at the genitals.

The “top-to-bottom” communication connections allow our facial expressions to reflect the pleasure or pain experienced during activities which affect these organs. These messages are termed “body language.”

<https://embryology.med.unsw.edu.au/embryology/index.php/Neural_-_Cranial_Nerve_Development>

The 42 muscles of facial expression contract and pull on the skin to exert their effects.

<https://teachmeanatomy.info/head/muscles/facial-expression/>

<https://www.smithsonianmag.com/smart-news/human-faces-might-only-express-four-basic-emotions-180949598/>

The facial muscles and heart are connected through the “recurrent laryngeal nerve” (RLN), the vagus nerve branch that supplies the muscles of the voice box. The RLN does not take a direct route from brain to throat. Instead, it descends into the chest, loops around the aorta near the heart, and then returns to the larynx.

<https://en.wikipedia.org/wiki/Recurrent_laryngeal_nerve>

The heart has its own independent nervous system which sends signals to the brain. The heart produces rhythmic bioelectricity which creates an electromagnetic field surrounding your body 360 degrees, extending about 3 feet. This heart magnetic field creates energetic communication between people. The “Heart-Brain” also has connections with specific brain segments such as the Prefrontal Cortex (PFC), the Anterior Cingulate Cortex (ACC), and the Insular Cortex (IC). During psychotherapy, we apply techniques which activate these areas.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062096/>

The PFC (Prfrontal Cortex) impacts executive functions: attention, predicting environmental events and consequences of actions, impulse control, managing emotional reactions, planning for the future, and coordinating behavior. It plays a role in personality development and sense of self.

[www.goodtherapy.org/blog/psychpedia/prefrontal-cortex](http://www.goodtherapy.org/blog/psychpedia/prefrontal-cortex)

The ACC (Anterior Cingulate Cortex) is connected with the limbic system and emotional regulation, vocalizations, pain perception, motor movements, and cognition ranging from decision-making to the management of social behavior.

[www.neuroscientificallychallenged.com/blog//know-your-brain-cingulate-cortex](http://www.neuroscientificallychallenged.com/blog//know-your-brain-cingulate-cortex)

The IC (Insular Cortex) handles functions ranging from sensory processing to feelings and emotions, motor control, risk prediction and decision-making, bodily and self-awareness, and social functions like empathy.

<https://doi.org/10.1016/j.cub.2017.05.010>

The PFC, ACC, and IC are impacted by certain “meditation” techniques due to a neurobiological mechanism which creates dissociative symptoms in certain traumatized clients. The personal sense of the emotional self can be impacted. Because of this risk of performing “meditation” by itself, you will be introduced to a combination practice of Progressive Muscle Relaxation integrated with Deep Breathing.

<https://doi.org/10.1016/j.neuropsychologia.2016.07.017>

<https://youtu.be/8VGhAPj6TQA>

<https://www.cheetahhouse.org/videos>

Ways in which “dissociation” can be induced: “staring” at a fixed point, “reducing” sensory input, being “immobile”, and repeating phrases. Spatial self-distancing can induce “dissociation” and cause you to “dis-identify” sensations or experiences. Many formats of meditation utilize the same techniques which can create “dissociation” because of “overmodulation” of the nervous system in chronically traumatized individuals. The person is forced into the “freeze” vagal state of dissociation.

<https://jmvfh.utpjournals.press/doi/pdf/10.3138/jmvfh.2019-0031>

 “IN SYNC” is a “step-by-step” model which integrates progressive relaxation for the somatic domain, deep breathing of the emotional domain, and mindful cognitive focusing of the mental domain. According to research, a stage-oriented model that uses skills training in emotional regulation is the most appropriate way to prevent and to resolve chronic trauma which has “dissociation” defenses.

<https://jmvfh.utpjournals.press/doi/pdf/10.3138/jmvfh.2019-0031>

IN SYNC is "awareness-induced allostatis." The stress triggers change as we learn different skills, change our life styles, and engage in “evolution” of “changing stability.”

<https://jirehnutrilifesport.com/alostasis-distress-and-integral-deterioro/>