

BEING IN TOUCH
ON THE NEUROBIOLOGY OF CONNECTEDNESS



International Society of Bonding Psychotherapy Conference
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 Certified Core Energetics Practitioner

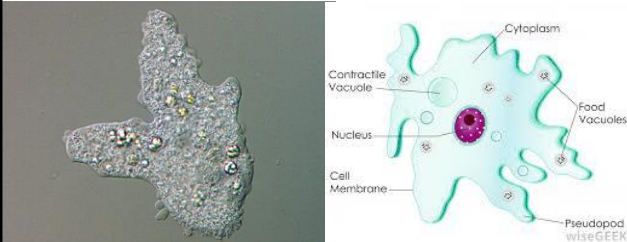
What is Touch?



TOUCH
 IS A WHOLE-PERSON EXPERIENCE
 BODY + EMOTIONS + MIND + SOUL

1
EXPERIENCE
 LIMBIC DANCE
 APPROACH & AVOIDANCE

AMOEBA
A One-Cell Organism



THE TWO ESSENTIAL FUNCTIONS IN LIFE #1

AMOEBAS

GO TOWARDS SOMETHING
(FOOD)
OR...
GO AWAY FROM SOMETHING
(DANGER)

FROM CELL TO ORGANISM

THREE EMBRYOLOGICAL TISSUE LAYERS

1. ECTODERM
2. MESODERM
3. ENDODERM

THREE EMBRYOLOGICAL TISSUE LAYERS

- ECTODERM:**
BRAIN (= CENTRAL NERVOUS SYSTEM)
SENSORY NERVOUS SYSTEM
Thinking
- MESODERM:**
PERIPHERAL NERVOUS SYSTEM
Action
- ENDODERM:**
AUTONOMIC NERVOUS SYSTEM
Feeling

EVOLUTION

Earth worms → Amphibians → Reptilians → Mammalians → Hominoids Primates → Humans

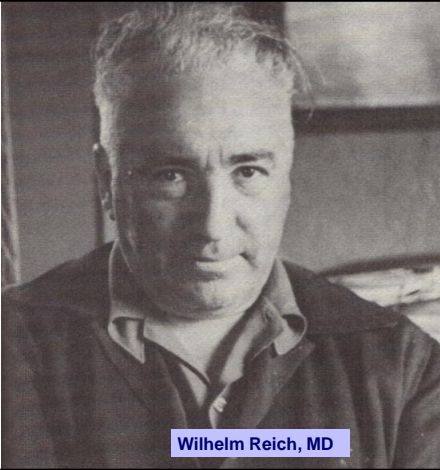
**Consciousness...
Rising UP**

FROM CONTACT TO ISOLATION: THE LATTERING OF CONSCIOUSNESS

**VEGETATIVE
THERAPY**

**MEDICAL
ORGONOMY**

**Father Of
Modern Body
Psychotherapy**



Wilhelm Reich, MD

PSYCHOSOMATIC UNITY

TISSUE LAYERS & ENERGETIC MEANING
(BOYESEN, BOARDILLA)

The Meaning of Cell Differentiation in the Human Organism

- Each germinal tissue layer has specific psychological – instinctual and energetic aspects associated with it.
- There is an intrinsic energetic blue print for our instinctual biological processes.
- Based on this energetic blue print, (or “consciousness”) and specific tissue development associated with it, particular psychological and somatic events happen in the organism.
- This information may be a useful basis for the understanding of how a person metabolizes energetic charge.

PSYCHOSOMATIC UNITY
TISSUE LAYERS & ENERGETIC MEANING (BOYESEN, BOARDILLA)

ECTODERM:

Definition: Outermost of three primary germ layers of an embryo. This circular outer (external = “ecto-“) cell formation develops into epidermis (skin), nervous system, and in vertebrates, sense organs.

Description: This germ cell layer produces cells that constitute the body’s external barrier and communications system. Its main function is gathering and integrating information.

Organs: Skin (outer layer), nervous system, sense organs, brain.

Body-mind Function: Think & perceive (“mental-intellectual”) Facing.

**THE TWO ESSENTIAL
FUNCTIONS IN LIFE #2**

HUMAN BEINGS

GO TOWARDS SOMETHING
(FOOD, CONTACT, PLEASURE...)

OR

GO AWAY FROM SOMETHING
(DANGER, EMPTINESS, PAIN...)

PSYCHOSOMATIC UNITY

TISSUE LAYERS & ENERGETIC MEANING (BOYESEN, BOARDILLA)

MESODERM:

Definition: Middle (= “meso-“) layer of three primary germ layers of an embryo. This circular cell formation fills out the space between ectoderm and endoderm. It develops into connective tissue (fascia), muscular, uro-genital system and vascular system.

Description: This germ cell layer produces cells that build the body’s of structure and support system.

Organs: Skeleton, muscles, cartilage, ligaments, fascia (connective tissue), urogenital system (kidney, bladder) and vascular system (blood vessels, heart, lymph)

Body-mind Function: Do + act (“somatic-athletic”). Grounding.

PSYCHOSOMATIC UNITY

TISSUE LAYERS & ENERGETIC MEANING (BOYESEN, BOARDILLA)

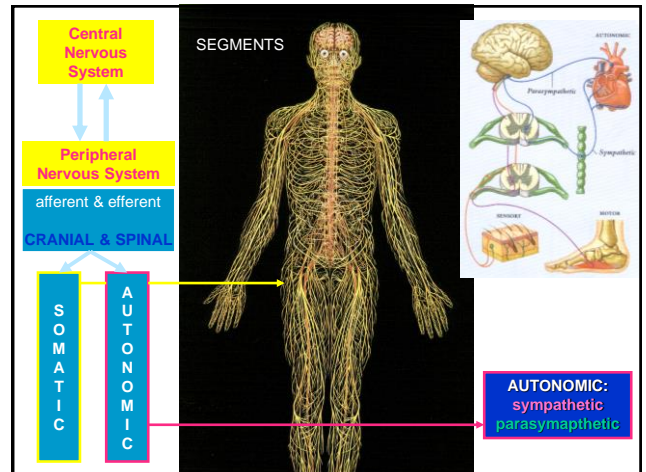
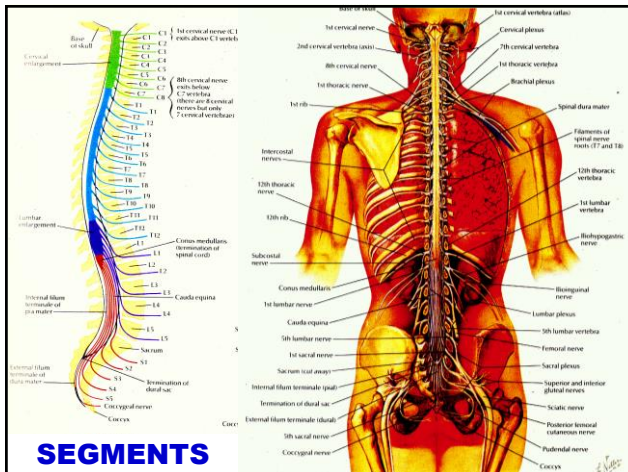
ENDODERM:

Definition: Innermost of three primary germ layers of an embryo. This circular inner (internal = “endo-“) cell formation develops into the intestinal system and related structures.

Description: This germ cell layer produces cells that metabolize energy. Coordinates the intake of energy. Metabolism. Homeostasis. Regulation and balance of body fluids. Regulated by the vegetative nervous system (sympathetic / parasympathetic nervous system)

Organs: Intestinal system, internal organs

Body-mind Function: Absorb & let go. (“feelings-emotions”)



SKIN, BRAIN & N.S.
derive from
"ECTODERM"
THEY ARE ONE FUNCTIONAL SENSORY UNIT
TELLING US WHAT IS GOING ON

1. STRUCTURE OF THE SKIN

- hair shaft
- groove of skin
- edge of skin
- hair root
- dermal ridge
- epidermal cell
- keratin muscle of hair
- medullary keratin muscle of hair
- cuticle
- hair bulb
- nerve fiber
- artery
- vein
- muscle
- secretory part of sebaceous gland
- sebaceous corpuscle
- secretory part of apocrine sweat gland

AUTONOMIC NERVOUS SYSTEM
Sympathetic - Yellow Parasympathetic - Blue

WE ARE PART OF A FIELD OF INFINITE POSSIBILITIES

THE SEVEN CHAKRAS & AUTONOMIC NERVE PLEXUSES

THIRD EYE
CROWN
THROAT
SPINAL CORD
HEART
SOLAR PLEXUS
SACRAL
COCYGEAL

Aura & Chakras

OUR WAY OF GOING AWAY....
CHARACTER DEFENSES & SEGMENTAL ARMORING

2

EXPERIENCE

JI GAM
THE COSMIC PLAY OF ENERGY

TRANSMITTERS & RECEIVERS

Our electro-magnetic fields exchange information.

They act, both,
as transmitters of information and
as receivers of information

QUESTION:

WHO ARE WE?

ANSWER:

ARE WE ACTUALLY OUR ENERGY?

QUANTUM

...IN A FIELD OF INFINITE POSSIBILITIES!

...IN A FIELD OF INFINITE POSSIBILITIES!

QUANTUM

CYTOSKELETON

Tensegrity

Cell elements vibrate
Cellular Harmonics

Oscillation

Vibration may be altered by growth factors and carcinogenesis

Based on James Oshman, PhD

OSCILLATING ELECTRO-MAGNETIC ANTENNAE

OUR BODY CELLS ARE MADE FOR VIBRATION

THEY CREATE, SEND AND RECEIVE ENERGY

consciousness energy

communication mind

HOW THE BODY TALKS TO ITSELF (and others) ...

"BIG-COMMUNICATION"

ENERGETIC SYSTEM

STRUCTURAL SYSTEM

NERVES & BRAIN

INFORMATION MOLECULES (e.g. neurotransmitters)

IMMUNE SYSTEM

GENETIC CODE

FEEDBACK LOOPS

"Emotional Heart"

•HOLOGRAPHIC
•REVERBERATING
•RESONATING
•REDUNDANT
•WAVE-LIKE

YOU

By Kuno Bachbauer, MD

...IN A FIELD OF INFINITE POSSIBILITIES!

Divine Matrix

3

EXPERIENCE

ENERGY & VIBRATION VOCALIZATION & RHYTHM

THE FUNCTION OF THE BRAIN

PREDICT THE FUTURE

“The brain is an anticipation machine”
Dan Siegel, MD

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RESEARCH DOG

What makes her feel what she feels?
And, what makes her do what she does?

SEGEN BACHBAUER

THE NERVOUS SYSTEM REVISITED...

THE NERVOUS SYSTEM RELAYS, FILTERS, AND INTERPRETS INFORMATION THAT COMES TO IT IN THE FORM OF ENERGY

....THE NERVOUS SYSTEM DOES NOT THINK!

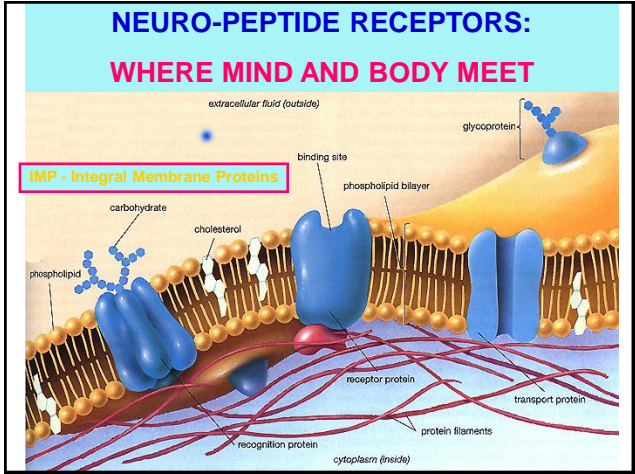
THE NERVOUS SYSTEM IS A DISTRIBUTION MECHANISM OF SUBTLE ENERGY THROUGHOUT THE ORGANISM

SENSORY AWARENESS

GIVES US AN ACURATE, FACTUAL READ OF OUR ENVIRONMENT

ALL ORGANS OF SENSORY AWARENESS, (INCLUDING THE BRAIN) ORIGINATE FROM THE ECTODERM,

IN OTHER WORDS, THE BRAIN IS A HUGE AND SOPHISTICATED SENSE ORGAN. DEVELOPMENTALLY, IT IS AN EXTENSION OF THE OUTER TISSUE LAYER (= Ectoderm)

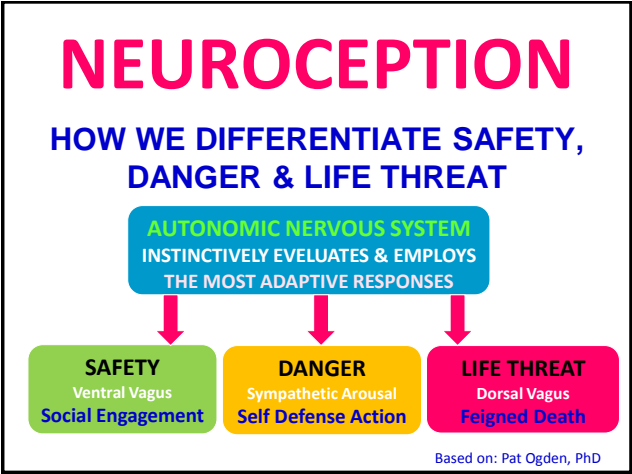


From
CELL MEMBRANE
 to
SKIN
 to
BRAIN
MEM-BRAIN

PERCEPTION

PERCEPTION IS THE **“VALUE-ADDED”** INTERPRETATION OF A SENSORY EXPERIENCE.

PERCEPTION IS **SUBJECTIVE**. IT IS INFLUENCED BY ONE’S ENVIRONMENT (Culture), PAST EXPERIENCES (Trauma), AND BELIEFS.



Coming up NEXT:

What are Emotions?

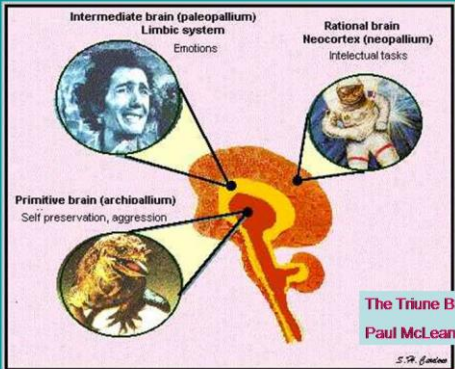
How do Emotions arise in the Body?
Why do we have Emotions?
And where do they come from?

RESEARCH IN ACTION

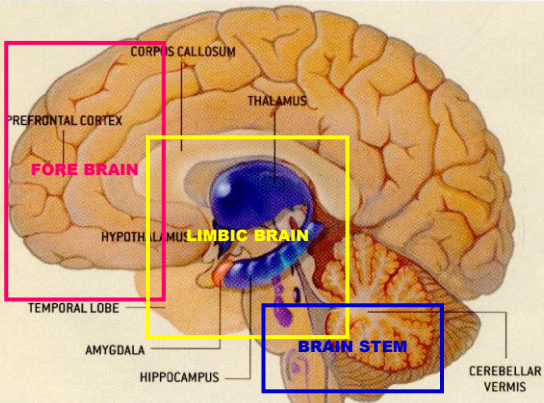


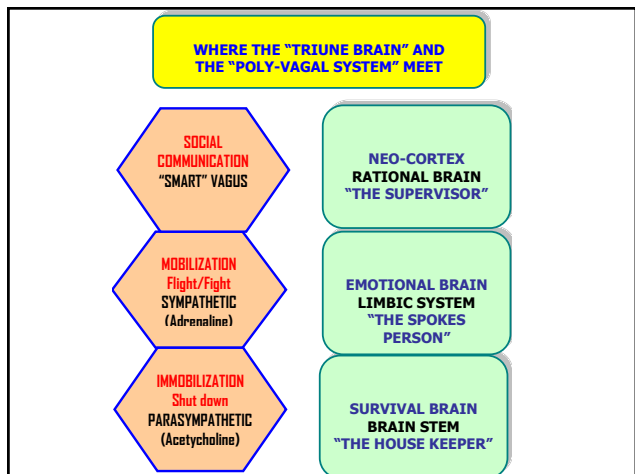
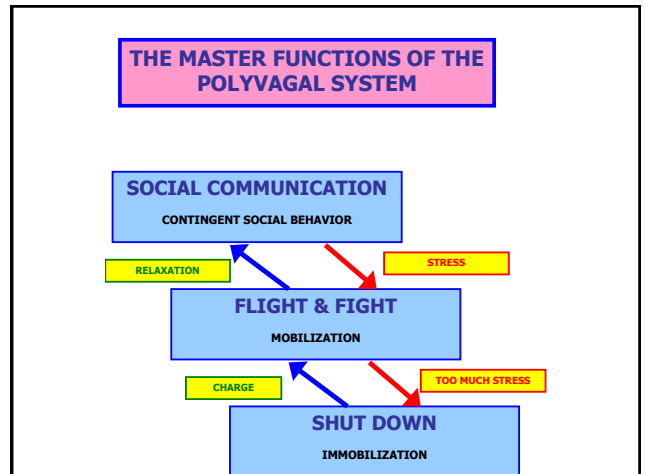
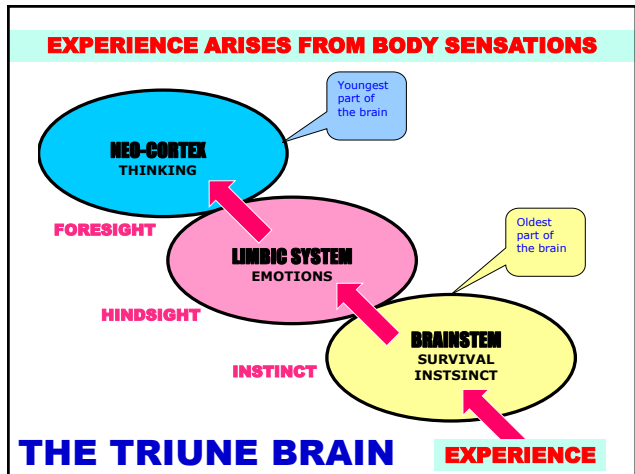
"LIMBIC RESONANCE" & "AUTONOMIC REGULATION"

The Emotional Brain



Who Is In Charge?

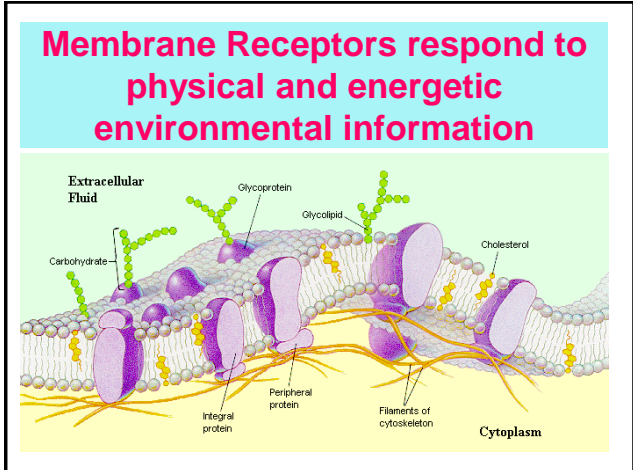
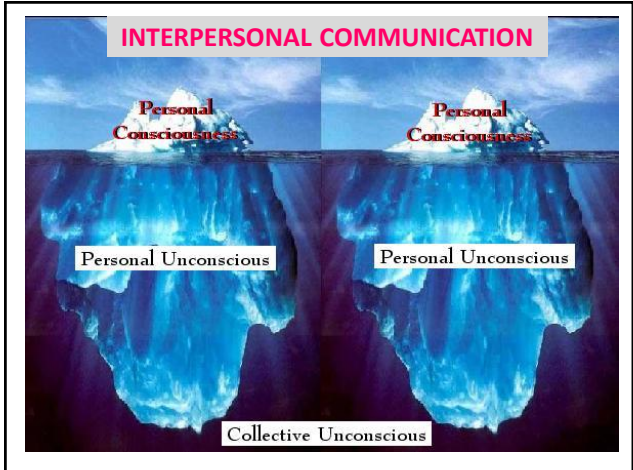




LIMBIC RESONANCE

BONDING

- RELATIONAL
- REVERBERATING
- HOLOGRAPHIC
- AUTONOMIC
- ENTRAINMENT
- WAVE-LIKE
- REDUNDANT
- SELF-REGUATING



4

EXPERIENCE

SOCIAL ENGAGEMENT

GAZING + MIRRORING

This block has a solid red background. It features the number '4' in a large white font at the top. Below it, the words 'EXPERIENCE', 'SOCIAL ENGAGEMENT', and 'GAZING + MIRRORING' are stacked in white, bold, sans-serif capital letters.

WHAT MAKES US WHO WE ARE?

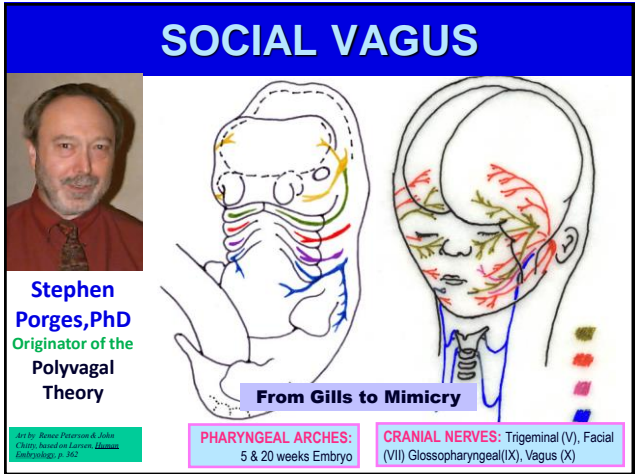
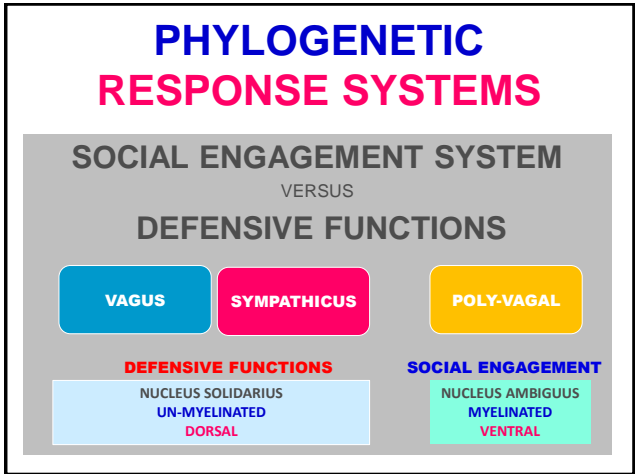
ENVIRONMENT

I AM

PSYCHOGENESIS GENETICS

... IN HEALTH AND IN ILLNESS ...

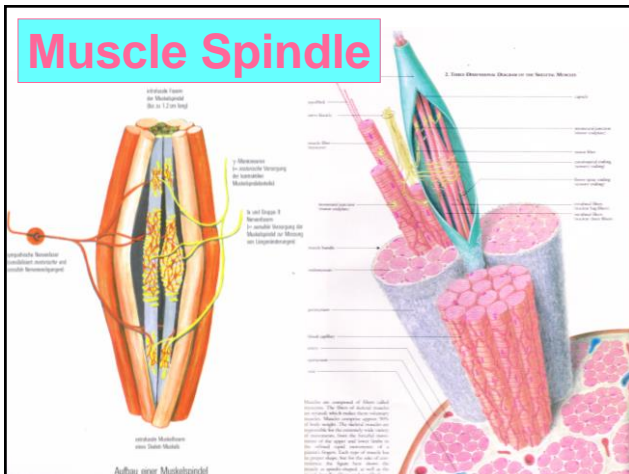
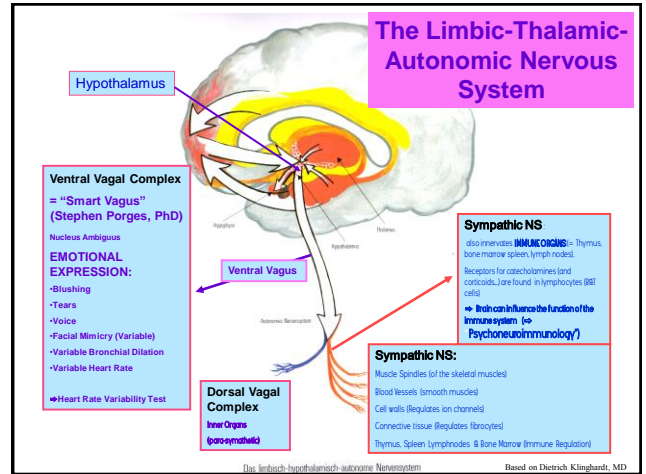
This block has a white background with a blue header and footer. The header contains the question 'WHAT MAKES US WHO WE ARE?'. Below it, the word 'ENVIRONMENT' is written in blue. In the center is a red-outlined triangle containing a blue six-pointed star with the letters 'I AM' in yellow. Below the triangle, the words 'PSYCHOGENESIS' and 'GENETICS' are written in blue. At the bottom, a pink box contains the text '... IN HEALTH AND IN ILLNESS ...' in white.



Social Vagus

“In pack animals it is more effective to pay attention to the social survival than the individual survival.”

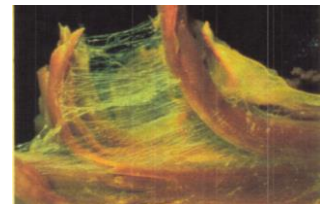
Stephen Porges, Ph.D.



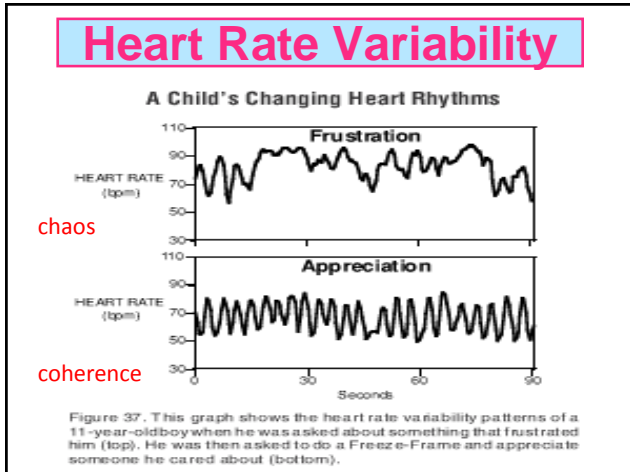
Connective Tissue Fascia



Dense Irregular Tissue
Organ capsules



Cotton-candy-like connective tissue
Myofascia



5

EXPERIENCE

EMOTIONAL EXPLORATION

MIRRORING

OUR BRAIN-TO-BRAIN BRIDGE

MIRROR NEURONS

ALLOW YOU TO FEEL
WHAT SOMEONE ELSE IS FEELING

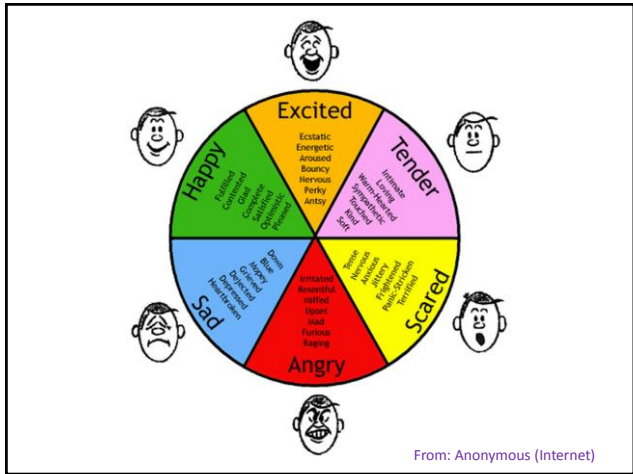
EMPATHY + COMPASSION + BEING "GOTTEN"

From: Tikkun Relationship Training - Hedy & Yumi Schleifer

MIRROR NEURONS

- A **MIRROR NEURON** is a neuron that fires both when an animal acts and when the animal observes the same action performed by another.
- Thus, the neuron "mirrors" the behavior of the other, as though the observer were itself acting.

Modified Excerpt. Based on Wikipedia



MIRROR NEURONS

- EMPATHY
- AWARENESS OF SELF AND OTHERS
- THEORY OF MIND
- MOTOR MIMICRY
- AUTOMATIC IMITATION
- EMOTIONAL CONTAGION
- LANGUAGE
- UNDERSTANDING INTENTIONS
- AUTISM

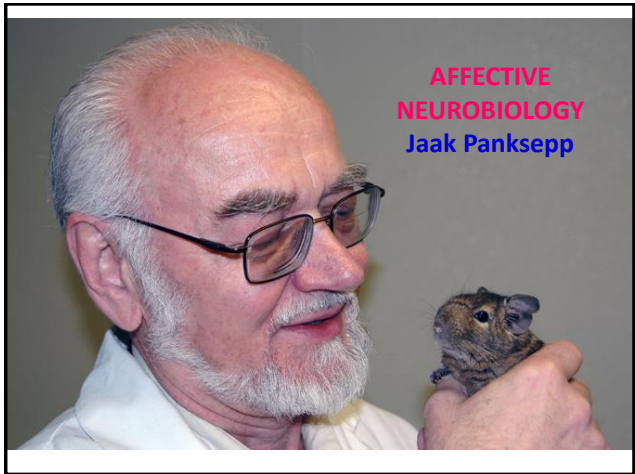


Modified Excerpt from Wikipedia

Emotions

are an evolutionary way to
decide whether the world is...

a **GOOD** place
or
a **BAD** place



AFFECTIVE NEUROBIOLOGY

Jaak Panksepp

- **SEEKING** (FORAGING, ADDICTIVE BEHAVIORS)
- **FEAR** (TREMBLING, TREPIDATION, ANXIETY)
- **RAGE** (RESTRAINT, FRUSTRATION, BLOCKED SEEKING)
- **LUST** (CORE SEXUAL URGES)
- **CARE** (NURTURING, "CAN DO", CONFIDENT TRUSTING)
- **PANIC** (GRIEF/SEPARATION DISTRESS, PSYCHIC PAIN)
- **PLAY** (SOCIAL PLAY, JOY, LAUGHTER, POSITIVE AFFECT, DANCE)

DISTINCT EMOTIONAL ACTION TENDENCIES + RAW FEELING STATES
DERIVING FROM VERY DEEP & ANCIENT REGIONS OF THE BRAIN

6

EXPERIENCE

EMOTIONAL EXPLORATION
CHARACTER DEFENSES &
THERAPY

What Happens in a BODY-PSYCHOTHERAPY Counseling Session?



APPRAISAL OF LIFE SITUATIONS:

The limbic system sorts
experiences to
IDENTIFY THREAT
based on earlier
experiences...



PAIN vs PLEASURE

HOW DO WE KNOW?

ALL SENSORY
IMPULSES END
IN THE
THALAMUS

IT IS A BRAIN REGION THAT
GIVES MEANING TO
SENSATIONS

IT QUALIFIES SENSATIONS,
FEELINGS, AND EMOTIONS

AS "GOOD" OR "BAD"
AND LETS US KNOW WHAT IS
"PAINFUL" AND WHAT IS
"PLEASURABLE"



Limbic Highlights

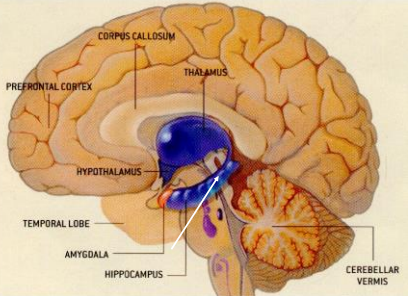
Emotions arise from the Limbic System and are embedded in the whole body.

You can't have emotions separate from the body.

The limbic system sorts experiences to **identify threat**, based on earlier experiences.

The Limbic system has a central role in **stress** response.

Can it be "reset?": This is the holy grail of body-centered trauma work!
Some therapists say "Yes!"



LIMBIC STRUCTURES: Hippocampus, Corpus Amygdalae, Thalamus, Hypothalamus & Pituitary Gland, Putamen (Part of Basal Ganglia), Caudate Nucleus (Part of Basal Ganglia), Substantia nigra (Part of Basal Ganglia).

APPRAISAL OF LIFE SITUATIONS:

The limbic system sorts experiences to **IDENTIFY THREAT** based on earlier experiences....



EMOTIONAL TRAUMA

Based on an experience in the **PAST...**

Pre-mature cognitive commitment

We can't enjoy the **PRESENT...**

When you make up your mind about the nature of a situation, the limbic system supports that view.



DYSREGULATION from Trauma

YOU CAN'T THINK YOURSELF OUT OF A DYS-REGULATED BRAINSTEM!



Rodin "The Thinker"

YOU NEED ANOTHER PERSON




EGO DEFENSES

ARISE OUT OF OUR STRUGGLE FOR BALANCE and BOUNDARIES

UNFORTUNATELY, THIS DOES NOT ALWAYS PRODUCE THE BEST RESULTS!





THE EGO
IS
FIRST AND FOREMOST
A BODY EGO

Sigmund Freud, MD

LAYERS OF DEFENSE

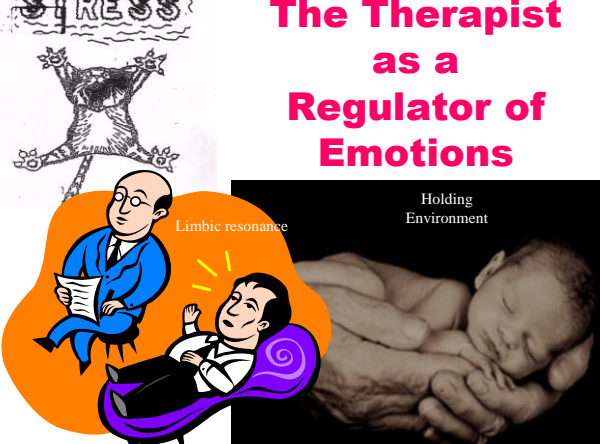


HAIL STORM vs. TURTLE
FIGHT/FLIGHT ↔ **FREEZE**

From: Tikkun Relationship Training - Hedy & Yumi Schleifer

STRESS

The Therapist as a Regulator of Emotions



Limbic resonance

Holding Environment


EMOTIONS TURN ON DNA

THOUGHTS + EMOTION = FEELING

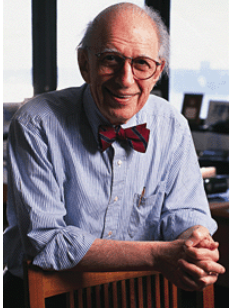
ELECTRIC MAGNETIC ELECTRO-MAGNETIC

Feelings create!

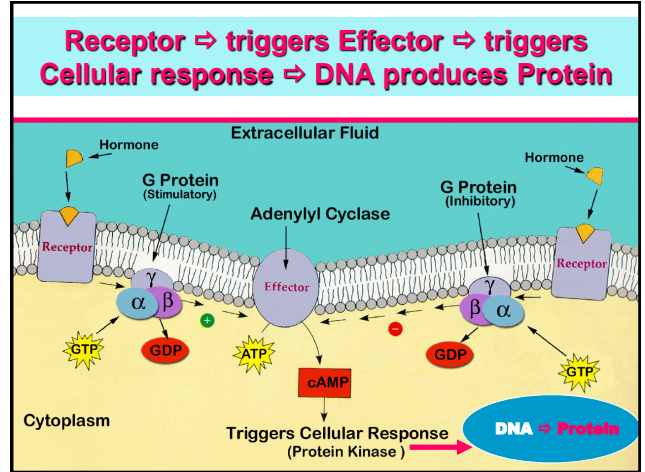
High Frequency: POSITIVE FEELINGS
Low Frequency: NEGATIVE FEELINGS




Eric Kandel



- Nobel Laureate 2000 for understanding “explicit” memory
- Experiences create new synapses.
- Experiences “hard wire” via trigger proteins (CREB) expressed by DNA.
- Behavior influences Biology
- Thoughts **shape** nervous system & brain structure



**A
THERAPIST
IS A
CHANGER
OF BELIEFS**



John Pierrakos, MD

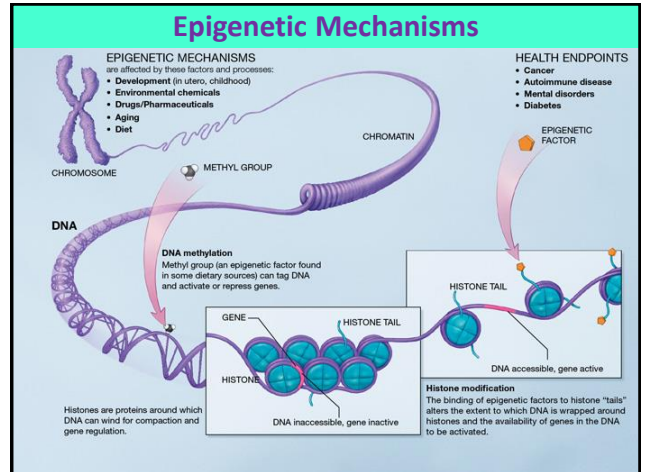
Understanding the Power Tools of Core Energetics

- Movement <<
- Breathing <<
- Voice <<

Consciousness = Energy <<<

**CHANGE YOUR CONSCIOUSNESS = CHANGE YOUR MIND =
CHANGE YOUR BODY = CHANGE YOUR REALITY!**

EPIGENETICS
THE MECHANISM OF
HOW OUR
BELIEFS
INFLUENCE
OUR GENES



WE ARE BORN TO BE IN THE "CORE" - OUR ESSENCE

- CURIOUS
- PLAYFUL
- CREATIVE
- SPONTANEOUS
- PASSIONATE
- FEARLESS
- INTELLIGENT
- COURAGEOUS



(From: ReEvaluation Counseling)

CO-CREATING A NEW BRAIN

- **STIMULATE POSITIVE SENSATIONS**
- **REPEAT SPECIFIC SUPPORTIVE PATTERNS**
- **FOCUS YOUR ATTENTION ON THE NEW VISION**
- **INHIBIT OLD PATTERNS & DECREASE OLD RESPONSES**
- **INTENSELY REPEAT NEW, MORE ADAPTIVE RESPONSES**

CHOICE = ENGAGING THE POSITIVE WILL

THERAPEUTIC TOOLS UTILIZING NEUROPLASTICITY

- Dropping **content**
- Hightened **awareness**
- Empathic **attunement**
- Interrupting **neural circuits**
- Disrupting **patterns**
- Noticing **instead of narrating**
- Intensive **“emotional” repetition**
- Emphasize **mindfulness**

6

EXPERIENCE

CLOSING CIRCLE
THANK YOU!

CONTACT INFORMATION

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THE END

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