

**EUROPEAN CONFERENCE ON RELIGION, SPIRITUALITY AND HEALTH
ECRSH, 12-14 May 2016, Gdansk, Poland**

**HISTORIC CUBA MEDICINE & RELIGION DIALOGUE
Neural Correlates of Prayer & Near-Death Experiences**

Deacon Robert Hesse, Ph.D.

www.contemplative.net
www.ish-tmc.org
rjhe@att.net

HISTORIC EVENT*

1. Religion Presented

2. Archdiocese Co-Sponsored

3. Cardinal Present

*** December 2015 - First time in over 50 years since revolution presenting to University of Havana via School of Medical Science**

CONFERENCE VENUE*

- 1. VII International Symposium**
- 2. Brain Death & Disorders Consciousness**
- 3. Spirituality & Health (S&H) Session**
- 4. TRYP Havana Libre Hotel***
- 5. Weeks After Pope Visit**

*** Formerly Hilton site of Fidel Castro's revolutionary office**

S&H* PHILOSOPHY

1. Interfaith Perspective
2. No Proselytizing
3. Empirical Research

* Spirituality & Health (S&H) full-day symposium by invitation of Calixto Machado M.D., Ph.D., the overall VII International Symposium organizer

S&H* & TODAY'S AGENDA

1. KEYNOTE PRESENTATIONS**

2. PRAYER RESEARCH

3. CONTEMPLATIVE PRACTICUM**

4. NEAR-DEATH EXPERIENCES

* R. Hesse – organizer & keynote moderator

** Videos at www.youtube.com/ContemplativeNetwork

CUBA & PRAYER

KEYNOTE PRESENTATIONS

NON-DUALISM PRINCIPLE*

1. Physical – Body (Reason/Science)

Consistent with

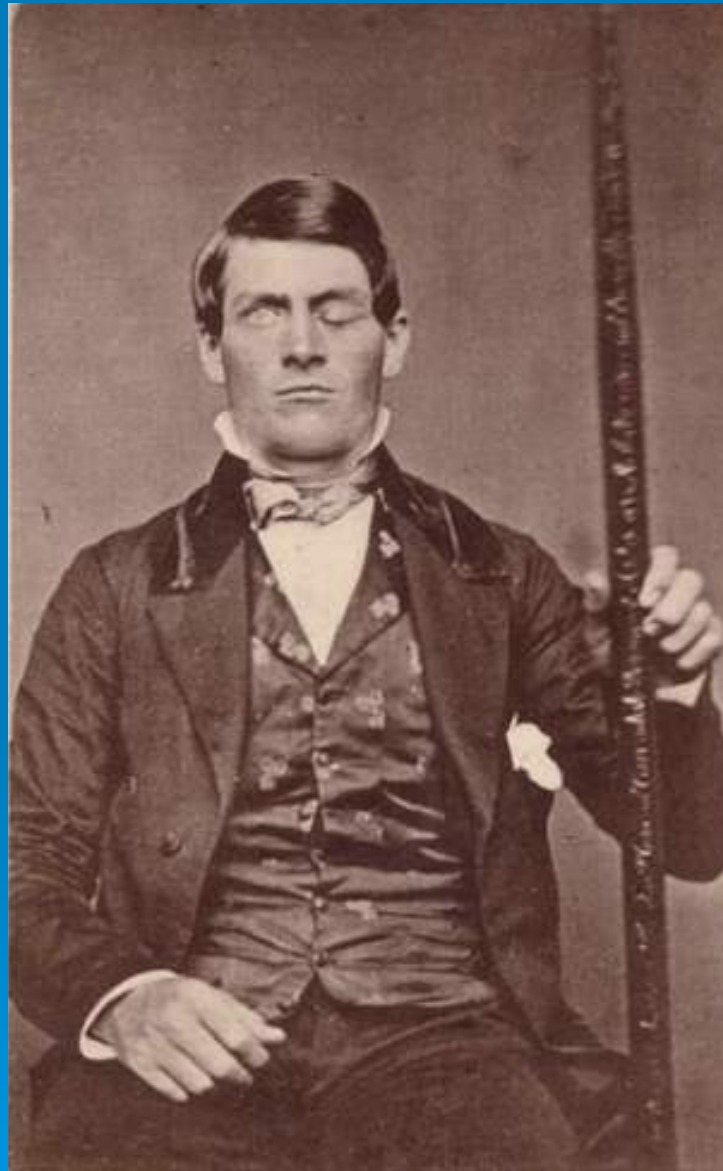
2. Spiritual – Soul (Faith/Theology)

*** “Faith can never conflict with reason” – St. Pope John Paul II**

INFORMED CONSCIENCE

1. **BIOLOGICAL** e.g. Conscience & Consciousness
2. **INFORMATIONAL** e.g. Empirical Research
3. **SPIRITUAL** e.g. Contemplative Prayer

PHINEAS GAGE



Conscience

MICHAEL MAY



Consciousness

EMPIRICAL RESEARCH

RELIGION, SPIRITUALITY AND HEALTH CARE - HISTORY, RESEARCH, AND APPLICATIONS



**Harold G. Koenig, MD,
Duke University Medical Center**

CONFIRMATION BIAS*

Human tendency to search for, interpret, favor, and recall information from the unconscious in a way that confirms one's beliefs or hypotheses while giving disproportionately less attention to information that contradicts it.

*Christian concept of original Sin?

BIAS ANTIDOTES

1. Psychotherapy (Science)

2. Prayer (Faith)

PSYCHOTHERAPY & SPIRITUALITY

WHY IT MAKES SENSE TO INTEGRATE SPIRITUALITY INTO MENTAL HEALTH CARE – AN EMPIRICALLY-BASED RATIONALE



Kenneth Pargament, Ph.D
Bowling Green State University

CONSCIOUS vs. UNCONSCIOUS

CONSCIOUS

Slow

Systematic

Explicit

Analytic

Rule-Based

Proactive

Reflective

Neocortex

Youngest

UNCONSCIOUS

Fast

Automatic

Implicit

Heuristic

Intuitive

Reactive

Impulsive

Limbic

Oldest

UNCONSCIOUS CONTENTS*

- Involuntary (Breathing)
- Habits (virtues & faults)
- Prejudices
- Worldviews (Faith)
- God Images
- Traumas (PTSD)

* Source of some Confirmation Bias

UNLOADING UNCONSCIOUS

1. Discursive (*Cataphatic*)

e.g. guided meditation*

2. Contemplative (*Apophatic*)

e.g. centering prayer

* Will discuss the latest research by Boelens and Salas

NON-THEISTIC MEDITATION

Beneficial for treatment of:

Chronic Pain

Insomnia

Anxiety

Hostility

Depression

Premenstrual Syndrome

Infertility

Dr. Benson, Harvard

CUBA & PRAYER

PRAYER RESEARCH

NEURAL CORRELATES

Healing Prayers, Depression and Traumatic Memories

Philip R. Baldwin, PhD

Kenia Velasquez, MS

Harold G. Koenig, MD

Ramiro Salas, PhD (Actual Cuba Presenter)

Peter A. Boelens, MD, MPH (Permission to use Slides)

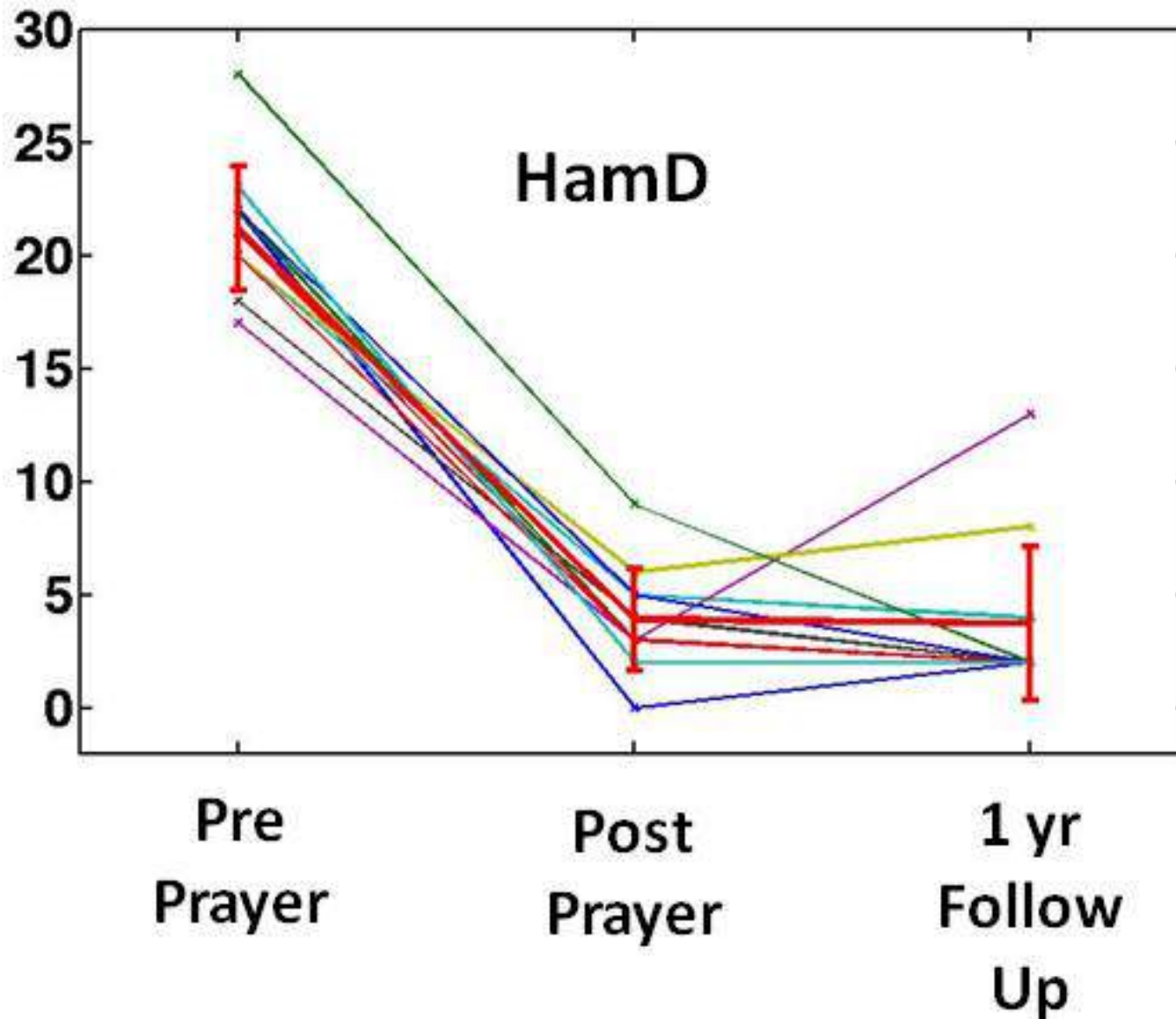
PRAYER METHOD

- 1. HURTFUL MEMORIES**
- 2. FORGIVING PERPETRATOR**
- 3. INNER HEALING**
- 4. EVIL DELIVERANCE**

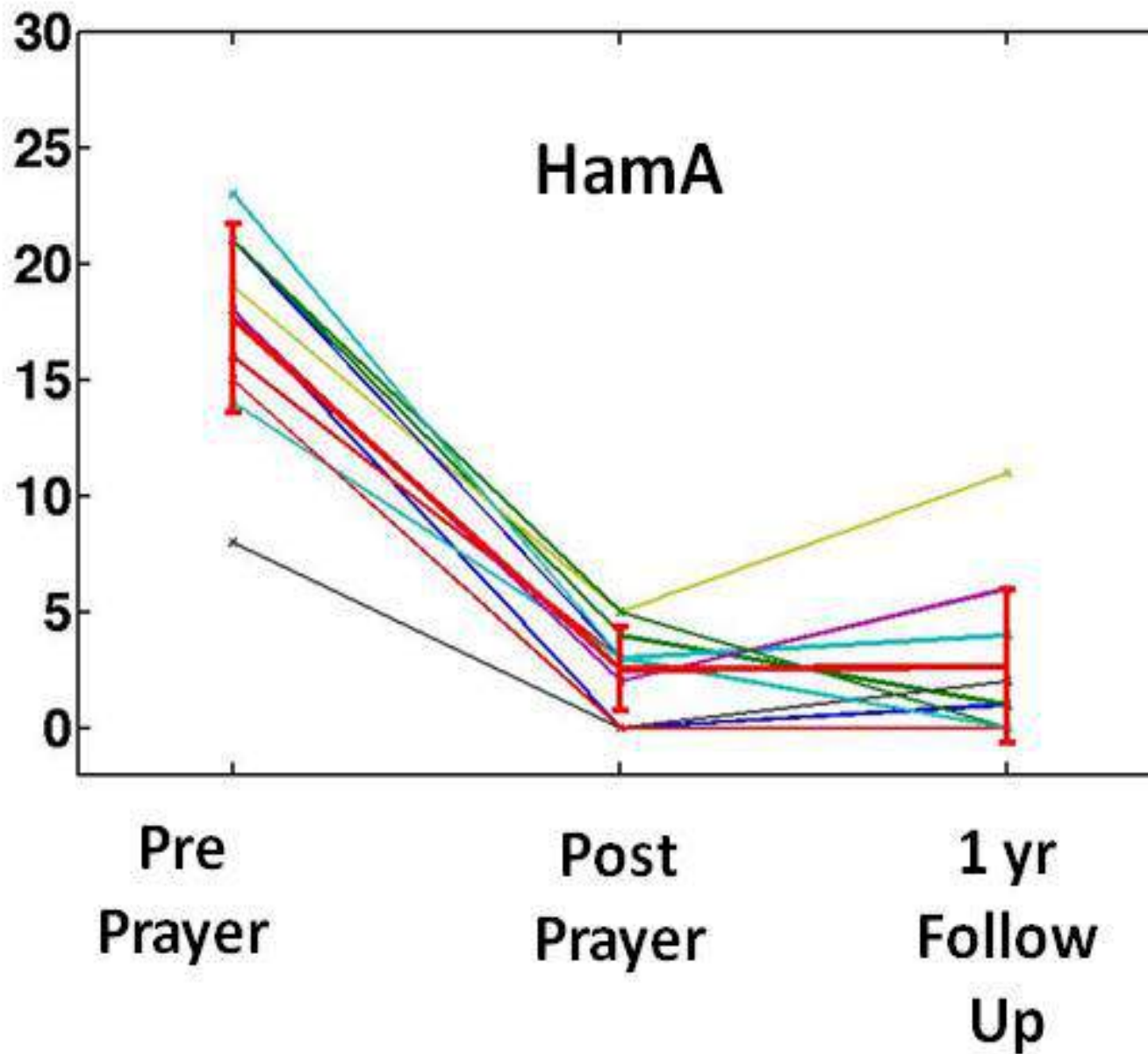
RESEARCH PROCEDURES

1. **DEPRESSED SUBJECTS:** medication & counseling free for 3 months
2. **MEMORY IDENTIFICATION:** traumatic childhood event
3. **PRAYER METHOD:** forgiveness & healing of the soul
4. **SESSION FREQUENCY:** one hour per week for 6 weeks
5. **fMRI SCANNING:** pre-prayer and post-prayer
6. **fMRI TASK:** on cue attach to memory & emotions of traumatic event
7. **EVALUATION FREQUENCY:** immediately post-prayer and at one year

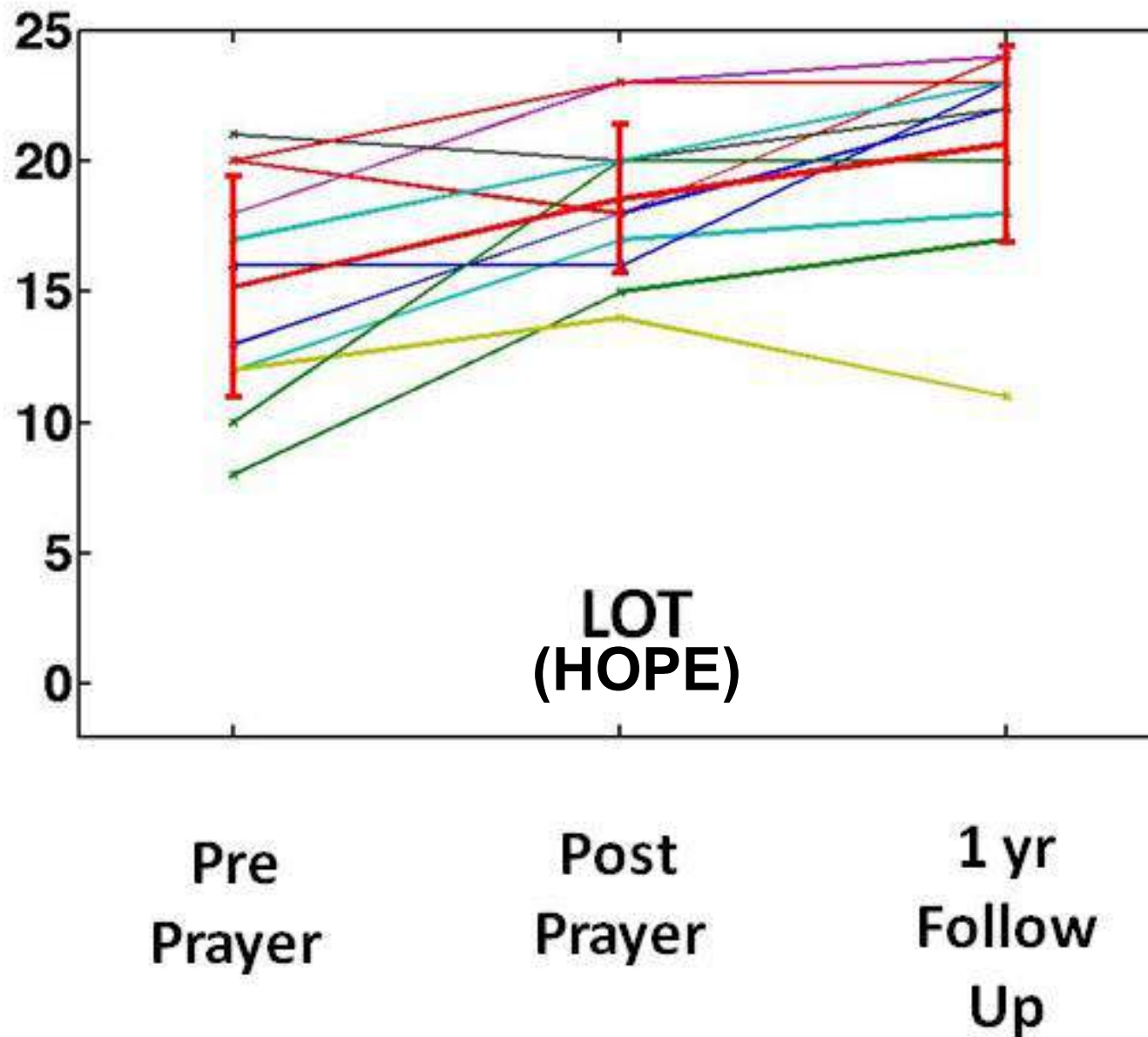
HAMILTON DEPRESSION



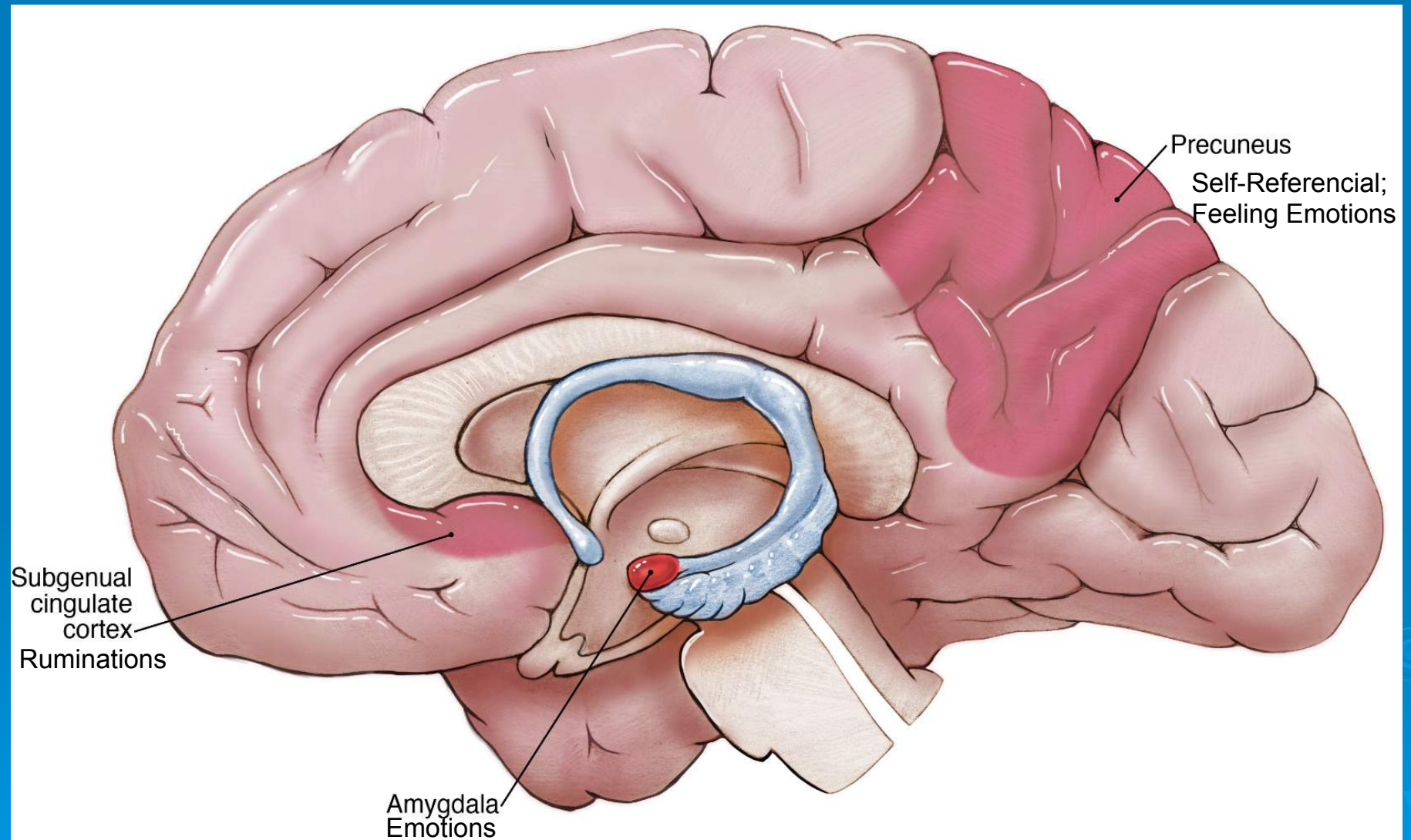
HAMILTON ANXIETY



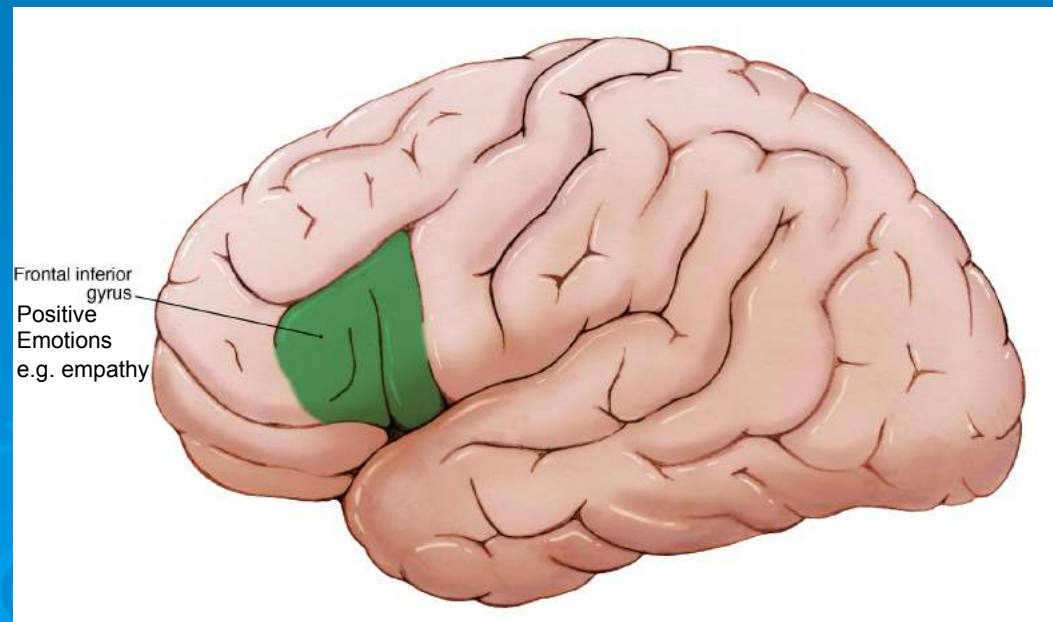
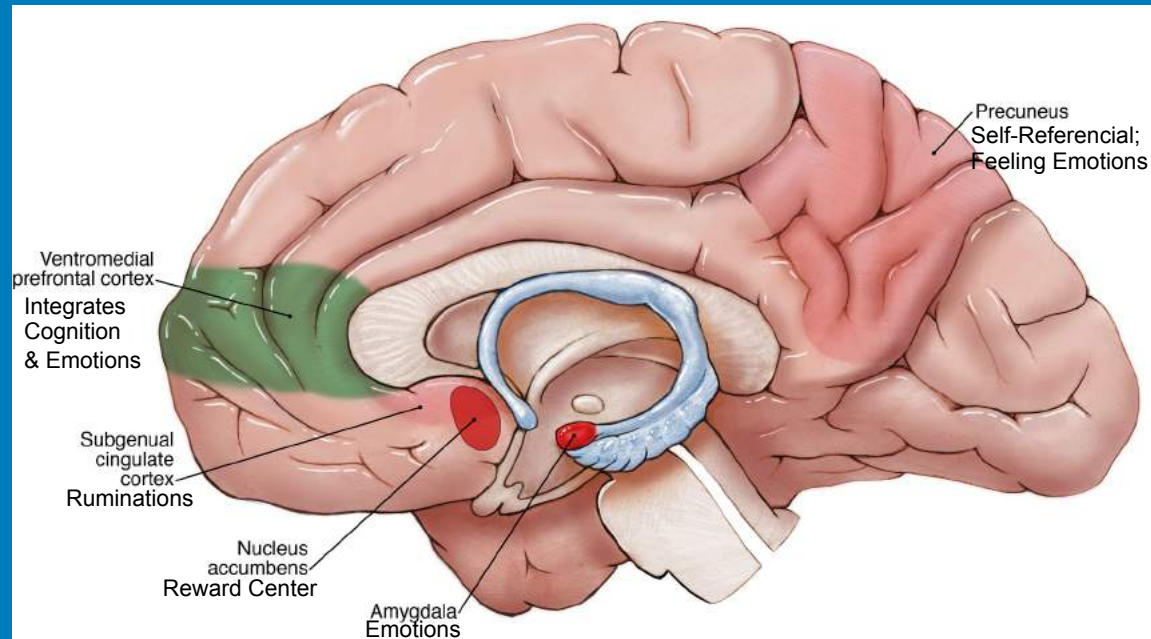
LIFE ORIENTATION



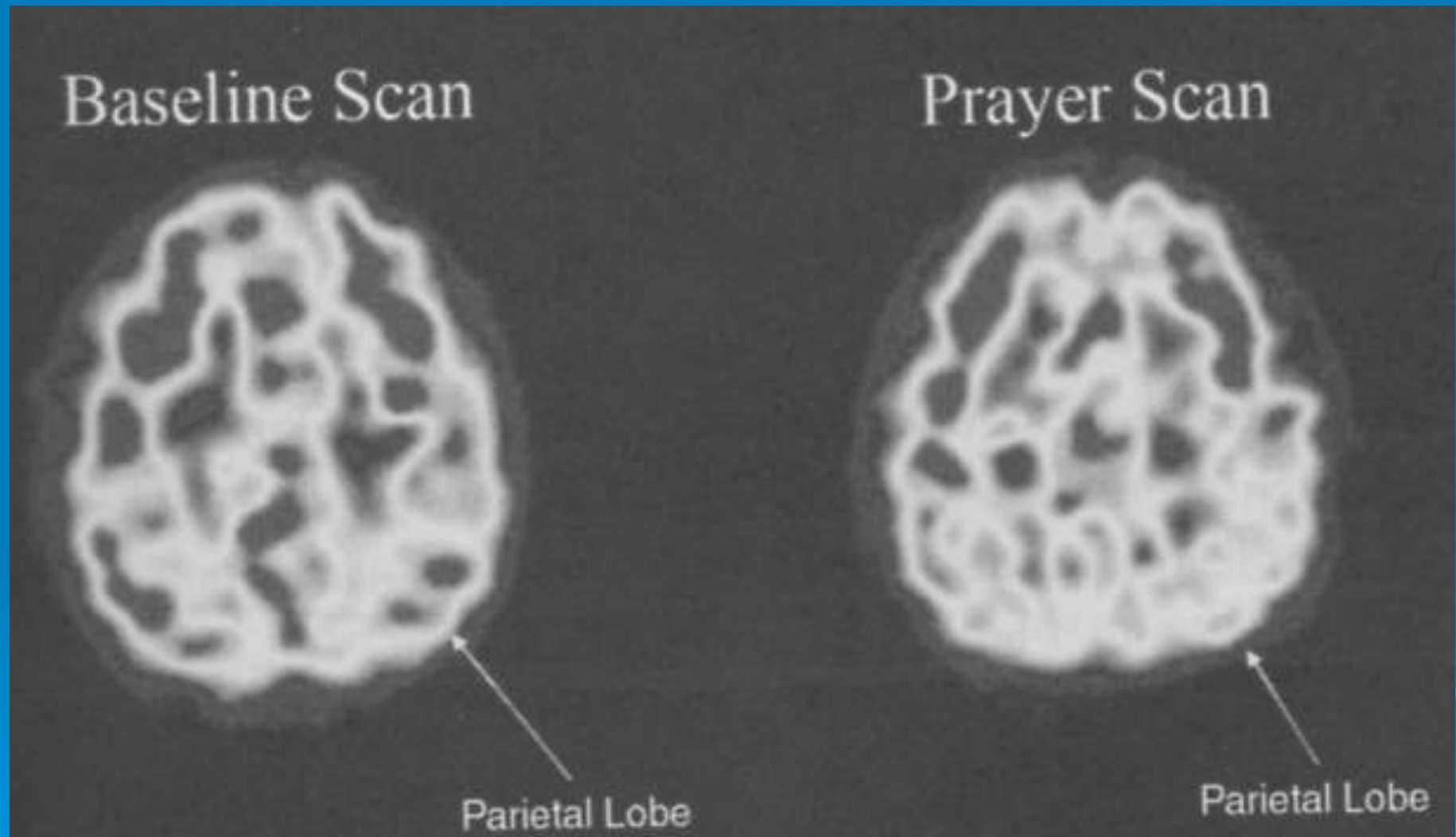
PRE-PRAYER fMRI



POST-PRAYER fMRI



CONTEMPLATIVE PRAYER*



*** Franciscan nuns who practice Centering Prayer:**
A. Newberg M.D. et.al., *How God Changes Your Brain*, 2009

CONTEMPLATIVE ANECDOTES

Vietnam Veteran

Chemo Patients

Male Teenager

Poor Homeless

Sinners' Past

Dying Atheist

Molester & Molested

Penitentiary Inmates

Battered Women

Sleeping Issues

- PTS Healing Memory

- Finally Peace

- Ecstasy Hands

- Out-of-Body

- Forgiven Memories

- Peace & Reconciliation

- Memory Forgiven

- Locked-up But Free

- Safety & Peace

- Less & More Sleep

CUBA & PRAYER

CONTEMPLATIVE PRACTICUM*

*** R. Hesse presenter**

CENTERING GUIDELINES*

S ACRED SYMBOL

- Chosen as intention to consent to God

C OMFORTABLE POSITION

- Then introduce symbol of God's presence

T HOUGHTS & RETURN

- When aware of, or engaged in, thoughts return to symbol

G ENTLE READJUSTMENT

- Conclude in silence a couple of minutes

* Facilitates contemplative i.e. mystical prayer

ALTERED CONSCIOUSNESS

IMPOSED:

1. Drugs
2. Electricity
3. Trauma

NATURAL:

1. Sleep
2. Contemplation (Mysticism)
3. Near-Death

MYSTICS' EXPERIENCES

1ST MILLENNIUM

Origen

Clement of Alexandria

St. Gregory of Nyssa

St. Basil the Great

St. Gregory of Nazianzen

Desert Tradition

St. Paul Evagius

St. Cassian

St. Augustine

St. Benedict

2ND MILLENNIUM

Hildegard of Bingen

St. Francis

St. Dominic

St. Catherine of Siena

Meister Eckhart

Julian of Norwich

Cloud of Unknowing

St. Ignatius of Loyola

St. Teresa of Avila

St. John of the Cross

MODERN

Evelyn Underhill

Friedrich von Hugel

Thomas Merton

Jacques Maritain

John Main

Laurence Freeman

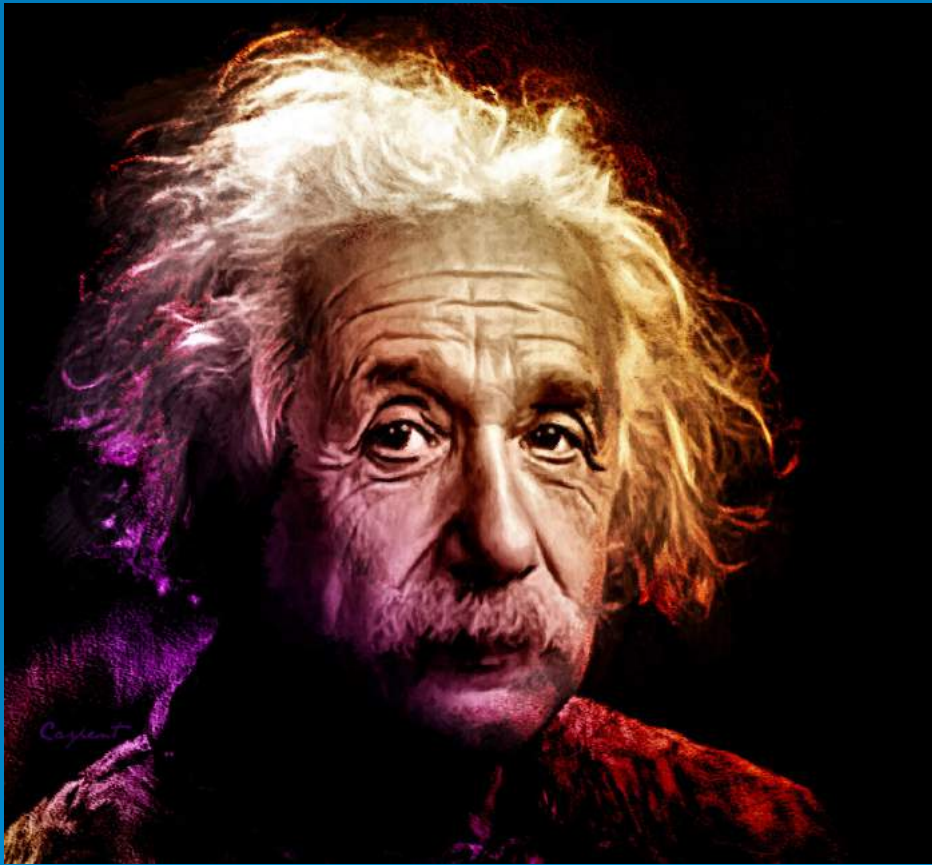
Bede Griffiths

William Meninger

Basil Pennington

Thomas Keating

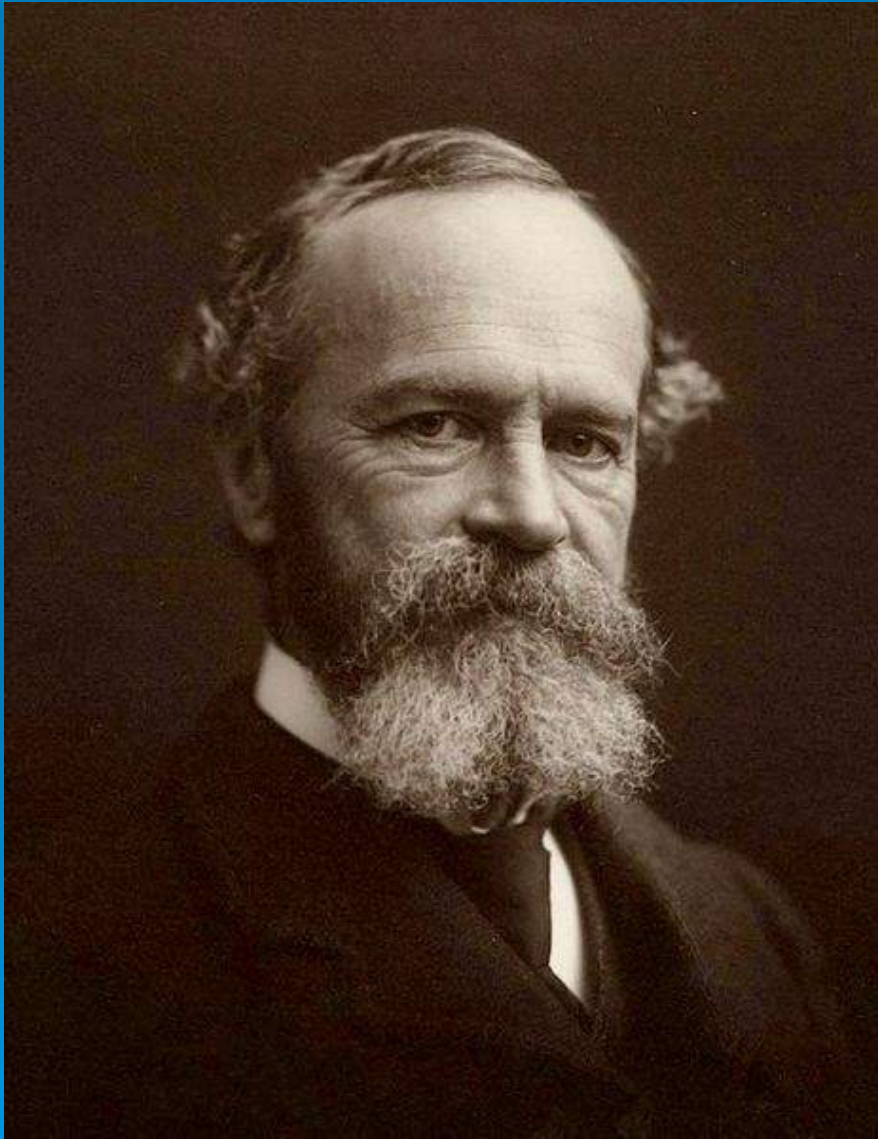
MYSTICAL EXPERIENCE



Albert Einstein

“the most beautiful emotion we can experience is the mystical.”

MYSTICAL ATTRIBUTES



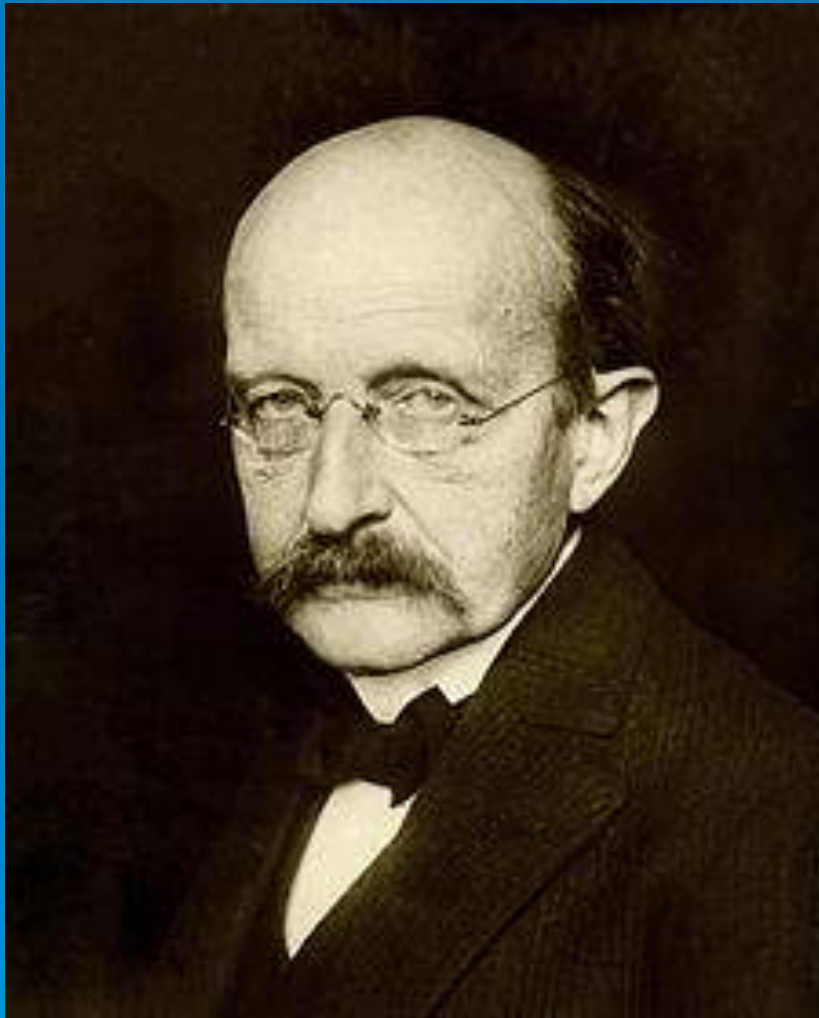
“our present consciousness is only one out of many worlds of consciousness that exists, [which] worlds must contain experiences which have a meaning for our life also. . . ”

Attributes

1. Language Inadequate
2. Non-Conceptual Knowledge
3. Brief Duration
4. Non-Volition Passivity

William James, *The Varieties of Religious Experience*, 1902

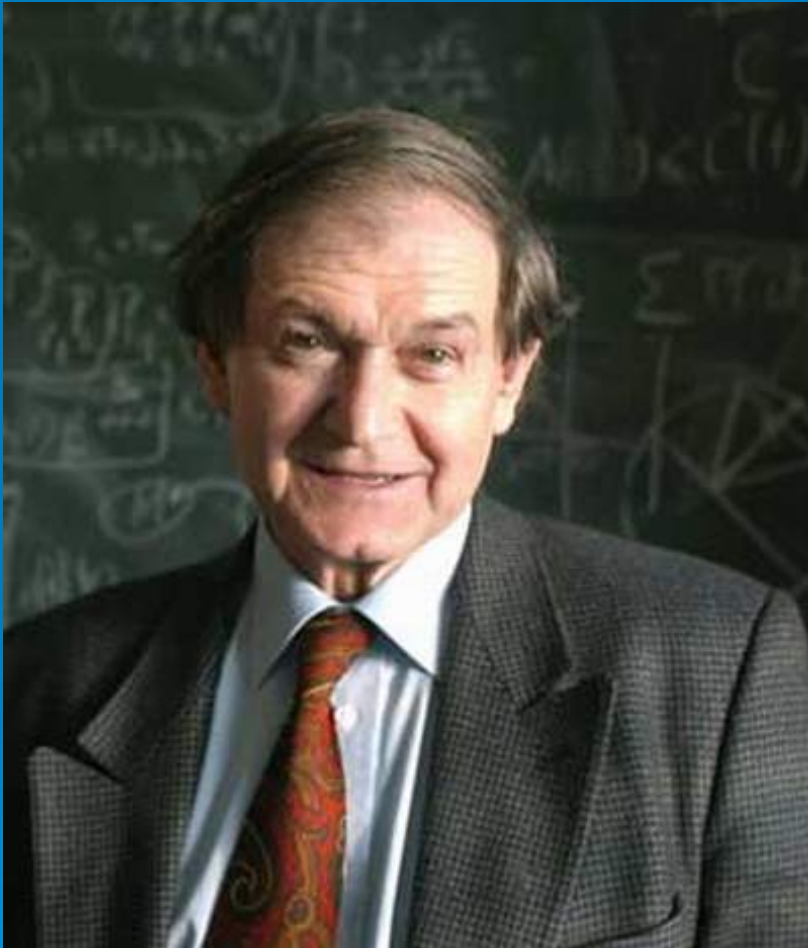
CONSCIOUSNESS & MATTER



"I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness."

Max Planck, Nobel Prize for Quantum Theory, quote 1931

UNIVERSE & CONSCIOUSNESS



“Consciousness seems to me to be such an important phenomenon that I simply cannot believe that it is something just ‘accidentally’ conjured up by a complicated computation. It is the phenomenon whereby the universe’s very existence is made known. One can argue that a universe governed by laws that do not allow consciousness is no universe at all.”

Roger Penrose, *The Emperor’s New Mind*, 1989 (Steven Hawking’s associate)

UNIFIED CONSCIOUSNESS

MYSTICAL

1. Timeless – short prayer
2. Wholeness – perfection
3. Oneness – universe
4. Spaceless – ecstasy

NEAR DEATH

1. Cognitive – timeless
2. Affective – peace
3. Transcendent – angels
4. Paranormal – out-of-body

SINGULARITY

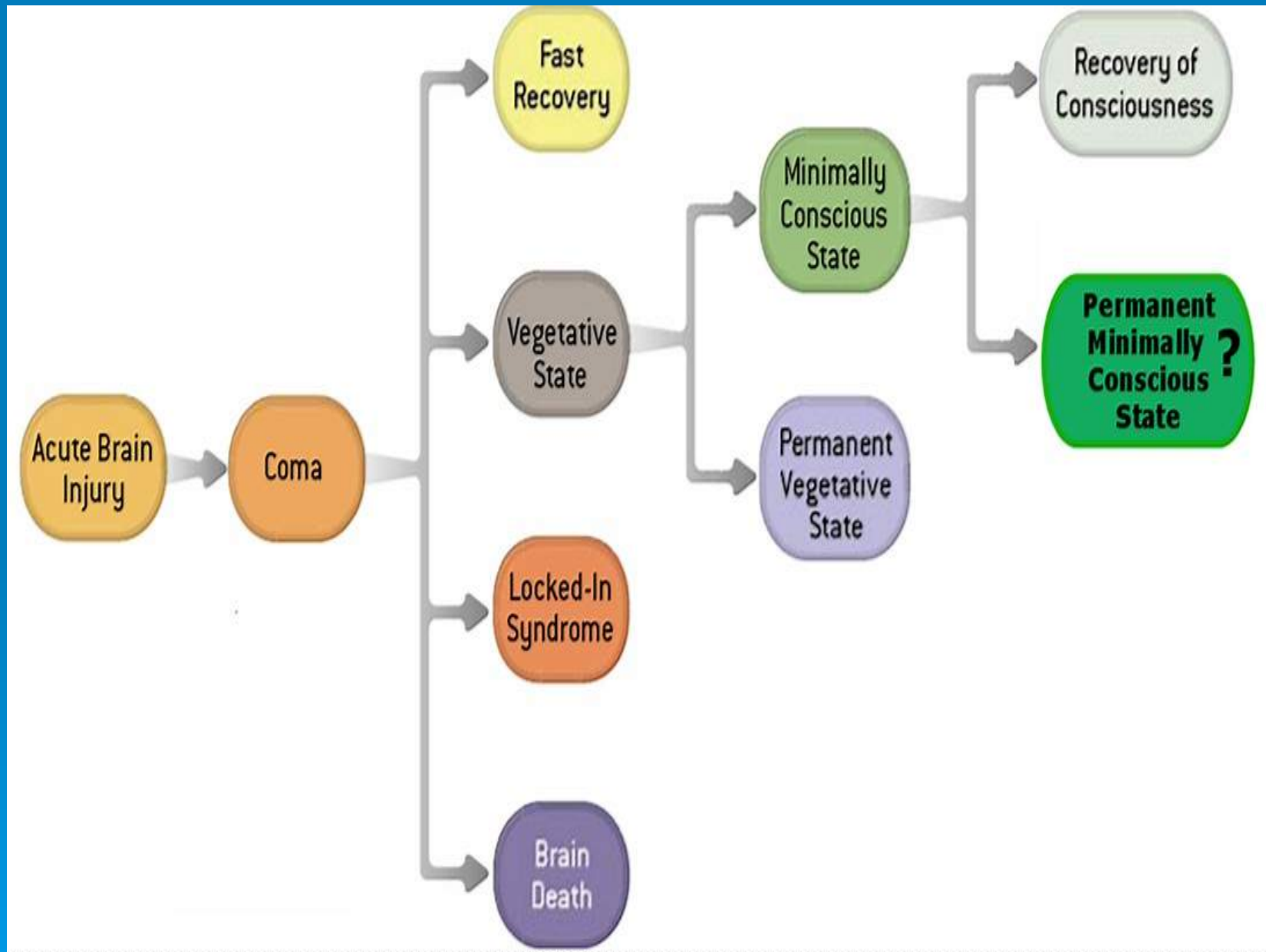
1. Timeless – outside time
2. Ordered – zero entropy
3. Unified – four forces
4. Dimensionless – no space

CUBA & PRAYER

NEAR-DEATH EXPERIENCES*

* Slides with Permission of Calixto Machado, MD, PhD, FAAN, Institute of Neurology and Neurosurgery, Havana, Cuba

NEW STATE CONSCIOUSNESS



PVS, MCS, BD, OR NEW?



Patient in Coma???



Patient in PVS???



Locked-in Patient ???



Brain-Dead Patient ???



BRAIN-DEATH DEBATE

PUBLIC DEBATE ON THE ACCEPTANCE OF BRAIN DEATH

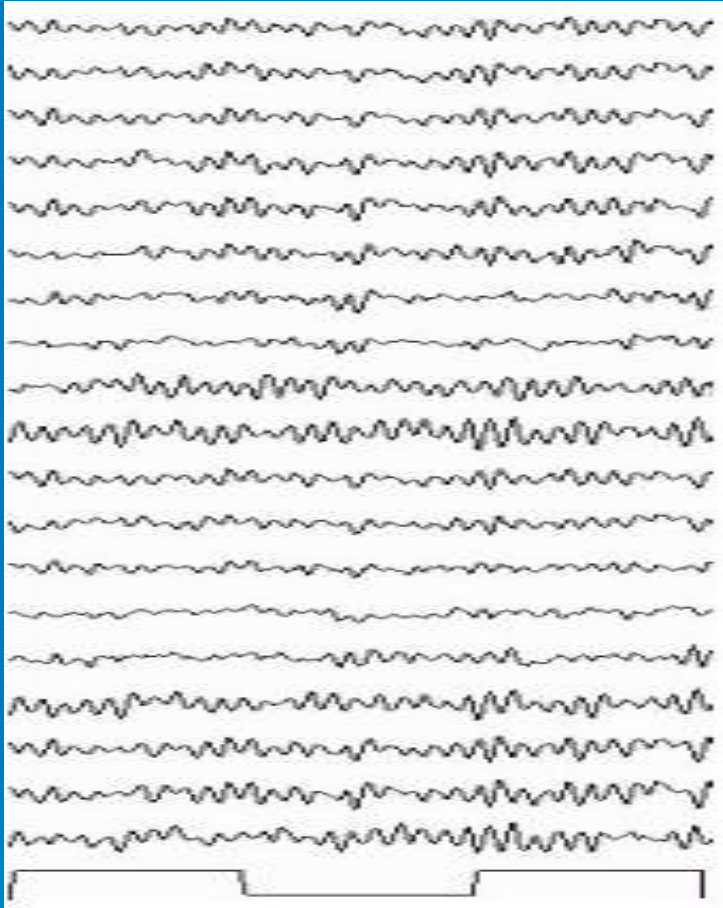


JMM



MMZ

QET* MEASUREMENTS



VS.



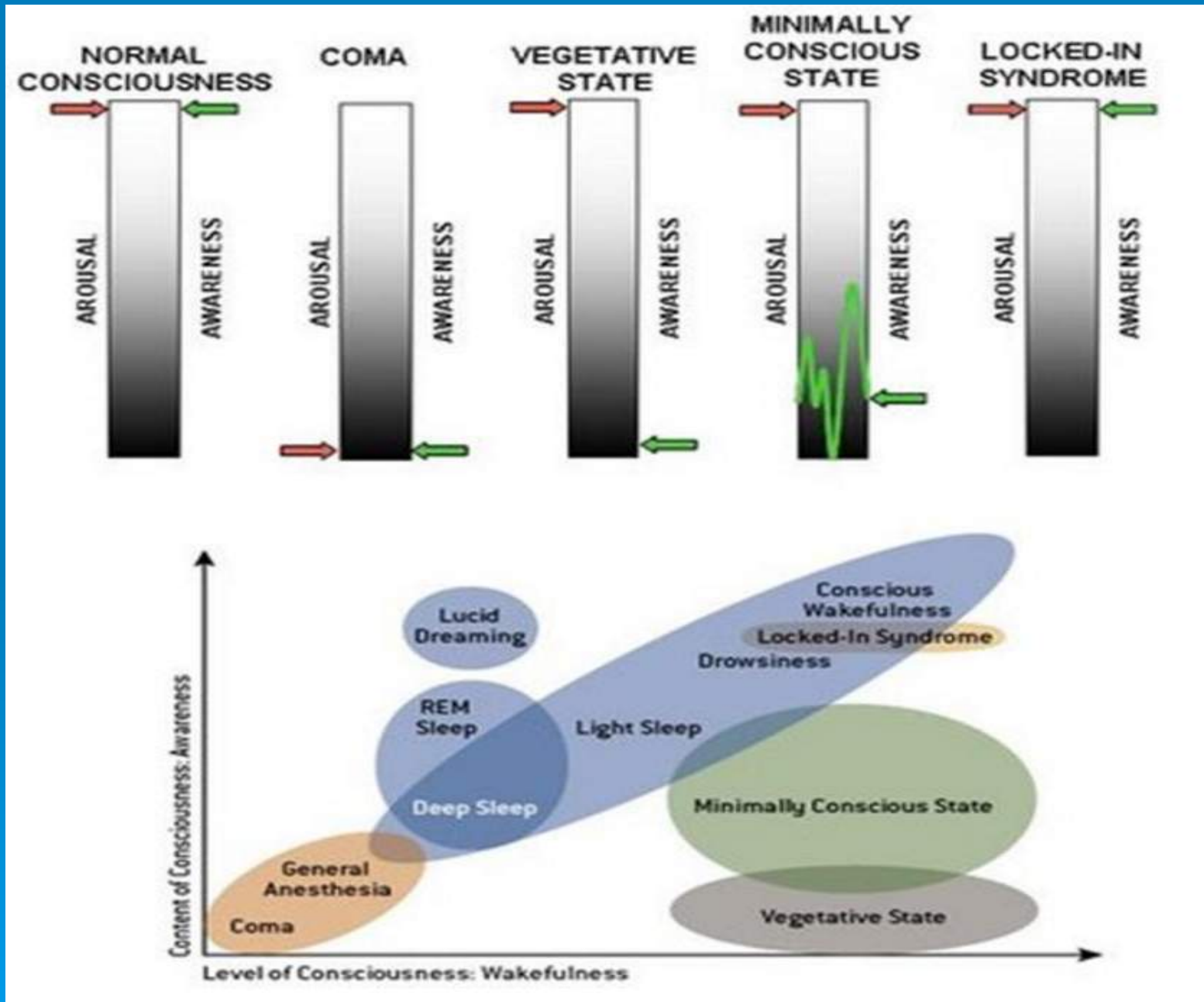
BASAL EEG

MOTHER TALKS

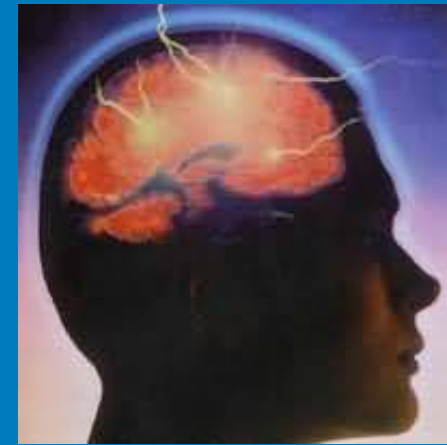
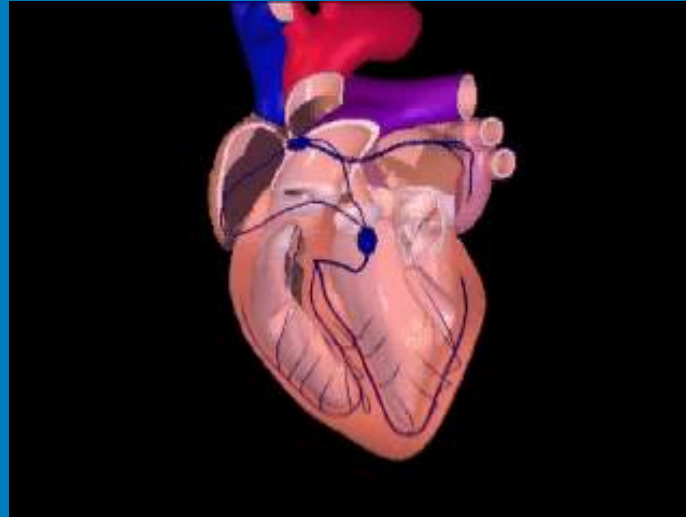
Machado C, et al. Recognizing a mother's voice in the persistent vegetative state. *Clinical EEG and Neuroscience* 2007; 38(3):124-126.

*** QET – Quantitative Electron Tomography**

NEVER CLASSIFIED STATE?



NEAR-DEATH EXPERIENCES*



* Mine existing Calixto Machado M.D., Ph.D. brain scan data base?

DISCUSSION

