

GOD AND OUR BRAIN

How our relationship with God changes and heals our brains



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RELATIONAL GOD

- Relationship Within The Trinity
- Relationship With Us
- Relationship Through Us With Others

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ATTACHMENT



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ATTACHMENT

- A God-given, biologically based system, online at birth
- Promotes proximity to an attachment figure, to protect from harm and danger
- The central foundation from which the mind and relationships develop

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ATTACHMENT RELATIONSHIPS

- Proximity Maintenance
- Haven of Safety
- Separation Anxiety and Distress
- Secure Base of Exploration

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ATTACHMENT

- Attachment Behaviors
 - Smiling
 - Cooing & Babbling
 - Crying
- Stages of Separation
 - Protest
 - Despair
 - Detachment

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ATTACHMENT

- Emotional Attunement
 - “Feeling felt”
 - Alignment of mental states
- *Emotional attunement leads to contingent communication that ultimately helps dyadically regulate the infant*
- Attunement, Misattunement, Repair



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ATTACHMENT

- Internal Working Models
 - Mental representations of self and others
 - Created out of repeated instances of dyadic regulation with a caregiver
 - Provide general rules for relational dynamics
 - Include both cognitive and emotional components

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ATTACHMENT

Contingent Communication +
Internal Working Models =
Secure Base

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ATTACHMENT STYLES

- (A) Avoidant Not distressed by separation;
 Avoids contact upon reunion
- (B) Secure Moderately distressed by separation;
 Seeks interaction upon reunion
- (C) Anxious-
 Ambivalent Very distressed by separation;
 Unable to be comforted upon reunion
- (D) Disorganized/
 Disoriented Moderately distressed by separation;
 Unpredictable/Unstable or fearful response
 upon reunion

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INTERNAL WORKING MODELS

<u>Attachment Style</u>	<u>View of Self</u>	<u>View of Other</u>
Avoidant	+	-
Secure	+	+
Anxious-Ambivalent	-	+
Disorganized/Disoriented	-	-

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THE BRAIN



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GOD AND THE BRAIN



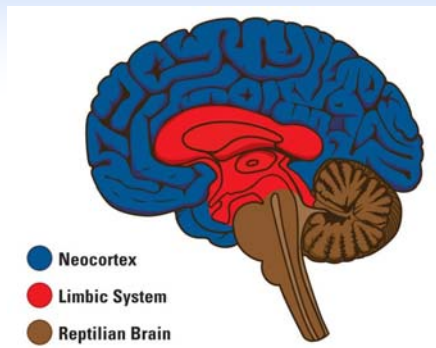
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GOD AND THE BRAIN



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THE BRAIN

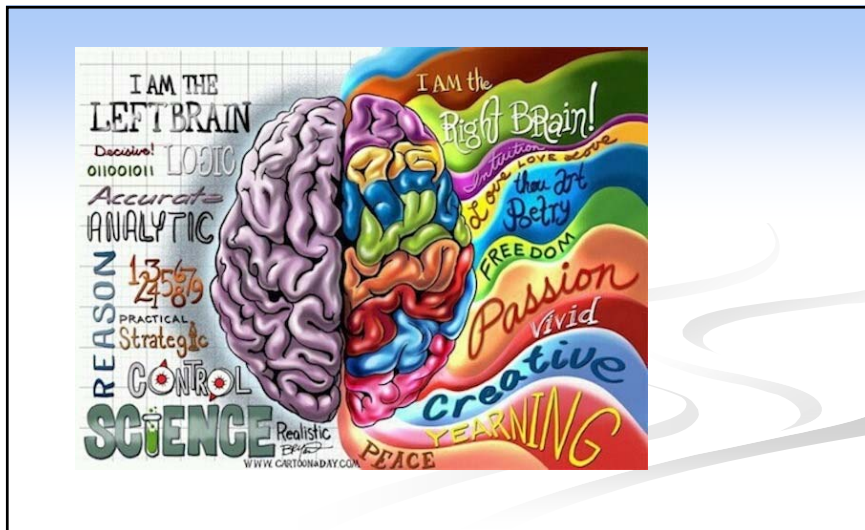


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THE PREFRONTAL CORTEX

- Body Regulation
- Emotion Regulation
- Attuned Communication
- Response Flexibility
- Empathy
- Insight and Self-Understanding
- Fear Extinction
- Intuition
- Morality

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NEUROBIOLOGY OF ATTACHMENT

- Attachment is a right hemisphere to right hemisphere phenomenon
- Internal Working Models are stored as implicit memories in the right hemisphere
- Dyadic regulation occurs in the orbital frontal cortex which lies in the prefrontal cortex
- Self-regulation is a function of the prefrontal cortex calming a sensitive or over-active amygdala

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INTERPERSONAL NEUROBIOLOGY

- Relationships change the structure and function of the brain
- Neuroplasticity
 - The brain's ability to change, heal, and reorganize itself through development of new neural pathways and connections

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NEUROTHEOLOGY

- Neurotheology
 - The scientific study of the neural correlates of religious or spiritual beliefs and practices
 - Spiritual Neuroscience or Science of Theology

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INTERPERSONAL NEUROTHEOLOGY

- The study of how an interpersonal relationship with God changes the structure and function of the brain
 - "But we have the mind of Christ." 1 Corinthians 2:16b
 - "Let this mind be in you which was also in Christ Jesus." Philippians 2:5
 - "And do not be conformed to this world, but be transformed by the renewing of your mind, that you may prove what is that good and acceptable and perfect will of God." Romans 12:2

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GOD ATTACHMENT

- Proximity Maintenance
- Haven of Safety
- Separation Anxiety and Distress
- Secure Base of Exploration

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GOD ATTACHMENT

- Avoidant
 - "God isn't there when I need Him, so I don't need God"
- Secure
 - "God is there, and I can count on Him. He accepts me and loves me, in spite of my flaws"
- Anxious-Ambivalent
 - "God could never be there for me because I'm too flawed. I could never be loved by God, and I know God would reject me"
- Disorganized
 - "I'm flawed beyond repair, and I know God would never be there for me. If I ever turned to God, He would punish or reject me"

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INTERPERSONAL NEUROTHEOLOGY

- Spiritual disciplines create a stronger bond with God

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SPIRITUAL DISCIPLINES

- "Liberation from the stifling slavery to self-interest and fear"
- "Allow us to place ourselves before God so that He can transform us"
- "The path of disciplined grace...where the change can occur"
- "To experience a life of relationship and intimacy with God"

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SPIRITUAL DISCIPLINES

- Inward Disciplines
 - Prayer
 - Meditation
 - Fasting
 - Study

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SPIRITUAL DISCIPLINES

- Outward Disciplines
 - Solitude
 - Submission
 - Simplicity
 - Service

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SPIRITUAL DISCIPLINES

- Corporate Disciplines
 - Worship
 - Confession
 - Guidance
 - Celebration

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INTERPERSONAL NEUROTHEOLOGY

- Spiritual disciplines are focused quality time with God that create an earned secure attachment which then changes and heals our brain and mind
 - Promotes proximity to God
 - God as a safe haven
 - Secure base to explore
 - Emotional attunement and feeling “felt”
 - Alignment of mental states
 - Contingent communication

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INTERPERSONAL NEUROTHEOLOGY

- Spiritual disciplines neurobiologically transform the brain
 - Increased right hemispheric access
 - Balanced left and right hemispheres
 - Improved orbital frontal cortex
 - Transformed prefrontal cortex
 - Regulated amygdala and limbic system

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INTERPERSONAL NEUROTHEOLOGY

- Spiritual disciplines transform the mind
 - Fruit of the Spirit
 - Mind of Christ
 - Spiritual and relational maturity
 - Self-regulation

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