



An Abductive Argument from Depression and Anxiety to Personal Holiness

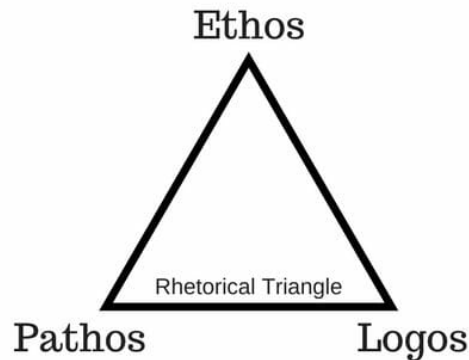
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The Three Appeals (Aristotle)

- Appeals to Ethos:
 - Ethos is an appeal to **ethics, credibility, character** of the persuader.
- Appeals to Pathos:
 - Pathos is an appeal to **emotion** usually creating an emotional response in an audience.
- Appeals to Logos:
 - Logos is an appeal to **logic** or persuading an audience using reason.



Introduction

- At a Continuing Medical Education (CME) meeting, a breakout lecture on “physician burnout”: Missouri Board of Healing Arts recommends *increased spirituality and community.*

Introduction

- Worldviews: theism, deism, polytheism, finite godism, pantheism, panentheism, atheism.
- If increased spirituality and community provide insulation from “burnout,” what are the implications for depression and anxiety?

Introduction

- “We desire truth and find in ourselves nothing but uncertainty. We seek happiness and find only wretchedness and death. We are incapable of not desiring truth and happiness and incapable of either certainty or happiness.”

— Blaise Pascal, *Pensée* 437



Introduction

- Uncertainty and unhappiness drive Depression and Anxiety (D&A)
 - Seeking a solution, science and philosophy engage in the study of “human flourishing”
 - Moralism
 - Naturalism
 - Nihilism



Introduction

- The “Is/Ought Fallacy”
 - Repeatable Science deals with “what is” (descriptive).
 - Morality deals with “what ought” to be (normative: rules/standard).
 - It is a fallacy to say that “because something is a certain way [descriptive], it ought to be that way [normative].”

Introduction

- Christian theism provides a synthesis of theology and science to provide normative and descriptive guidance for the mind, body, and spirit.
- The goodness and rightness of Christian living (i.e., personal holiness) should provide immunizing and insulating effects against D&A.

Introduction

- If religion and spirituality are preventative against and therapeutic for D&A... does Christian personal holiness provide a solution to D&A?



Chapter Two: The Science

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Depression: 2 weeks or >

- Depressed mood**
- Loss of interest**
- Weight fluctuations
- Appetite changes
- Sleep changes
- Psychomotor issues
- Fatigue and guilt
- Cognitive changes
- Ideation of death/dying/suicide

Anxiety: > 6 months

- Excessive worry “for more days than not” **
- Restlessness
- Fatigue
- Cognitive changes
- Irritability
- Muscular issues
- Sleep disturbance



Neurocognitive Mechanisms of D&A

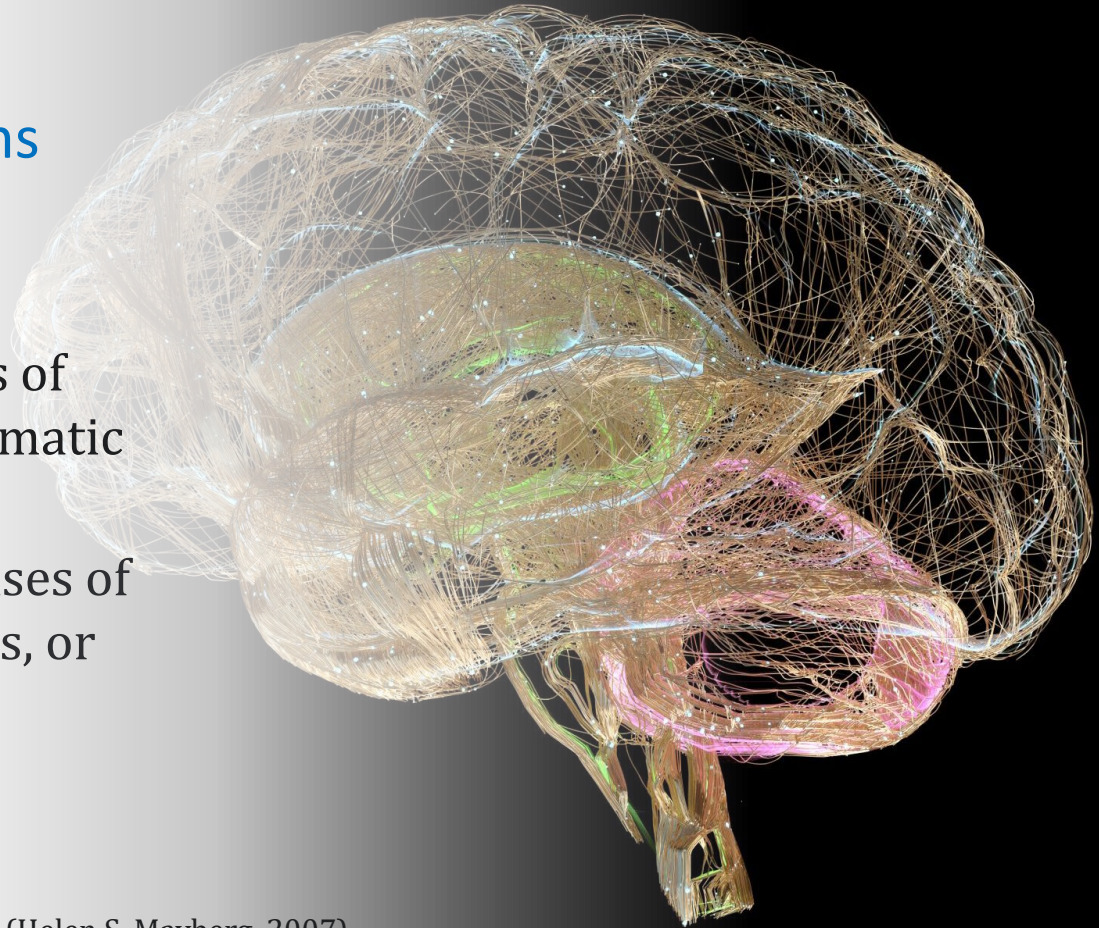
Martin Seligman (1972): “learned helplessness”

Aaron Beck (1979): “cognitive model of depression”

Sandi & Richter-Levin (2009): “Neurocognitive hypothesis” with “high anxiety trait neuroticism”

Neurocognitive Mechanisms of D&A

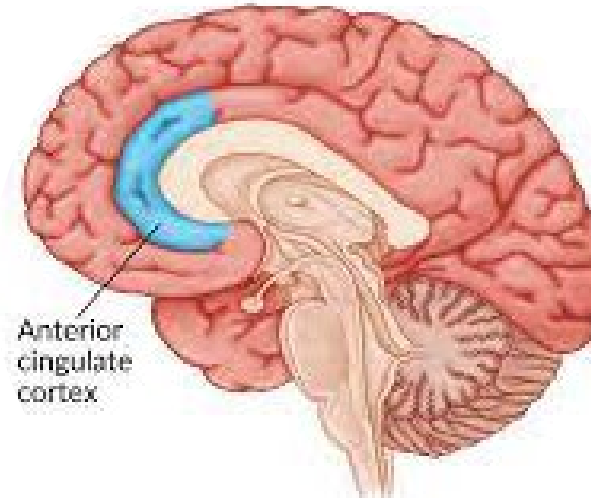
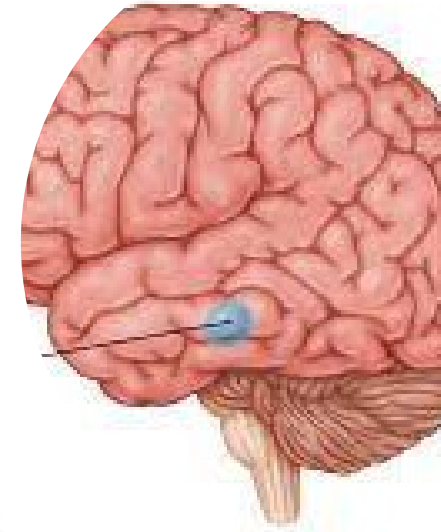
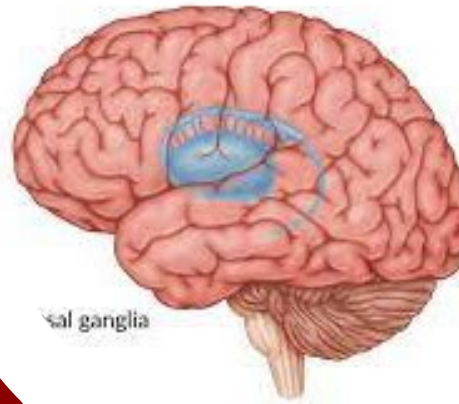
- D&A: failed neural networks of cognitive, emotional, and somatic control processes.
 - Concept shift from diseases of neurotransmitters, genes, or neuro-anatomy.



(Helen S. Mayberg, 2007)

Neurocognitive Mechanisms of D&A

- Dysregulations of:
 - Prefrontal cortex (PFC) and subgenual anterior cingulate cortex (ACC)
 - Subcortex: striatum and thalamus
 - Temporal lobe: amygdalae and hippocampus



Neurocognitive Mechanisms of D&A



PFC: executive functions, personality, subjective awareness, and mood



Basal ganglia/striatum and thalamus: coordinate areas of the brain (movement, learning, emotion)



Amygdalae: memory, decisions, emotion



Hippocampus: long-term memory, spatial relationships, conflict processing

Neurocognitive Mechanisms of D&A

- Four domains of impairment:
 - executive control
 - memory
 - affective processing bias
 - feedback sensitivity

(Clark, Chamberlain, Sahakian, 2009)



Religion and Spirituality for D&A

Roughly 72 to 85 percent of meta-analyses report positive effects of religion and spirituality (R/S) on D&A.

Therapies are trending away from first-line pharmacotherapy (SSRI's, SNRI's) to various types of cognitive behavioral therapy (CBT)



Chapter Three: The Philosophy

Chapter Three: The Philosophy

- What best explains the neurocognitive mechanisms and effects of R/S on D&A?
 - Deductive logic
 - Inductive logic
 - Abductive logic




Deductive Logic

- If the premises (P) of an argument are true, then the conclusion (C) necessarily follows.
 - P1: Socrates is a man.
 - P2: All men are mortal.
 - C: Socrates is mortal.



Deductive Logic

- Leibnizian contingency argument
 - Kalām cosmological argument
 - Objective morality argument
 - Fine-tuning argument
- 


Inductive Logic



- Based on observational data, conclusions are drawn that are *probably* true.
 - Observed Canada geese in Missouri and Iowa are black, brown, and white in color.
 - Therefore, most Canada geese everywhere are black, brown, and white.



Inductive Logic

- The neurocognitive mechanisms of D&A
 - R/S has positive effects on D&A in 72 to 85 percent of meta-analyses.
- 

Abductive Logic

- Reasons from known effects back to the best explainable cause (i.e., inference to the best explanation).
 - Goldilocks and the Three Bears



Abductive Logic

- The Three Bears notice the chairs, the porridge, and the beds and draw a *design inference*.
- To explain an event, the cause is either:
 - Natural law/regularity
 - Chance
 - ***Design*** (also called “intelligent design”)

Design Inference

- The two criteria for a design inference are:
 - Specified complexity
 - Improbability



A Design Inference

- Premise 1: LIFE has occurred
- Premise 2: LIFE is specified.
- Premise 3: If LIFE is due to chance, then LIFE has small probability.
- Premise 4: Specified events of small probability do not occur by chance.
- Premise 5: LIFE is not due to a regularity.
- Premise 6: LIFE is due to regularity, chance, or design.
- Conclusion: LIFE is due to design.

(Dembski, *The Design Inference*, 1998)

LIFE: A Design Inference

- If LIFE displays specified complexity AND improbability, then a *scientific* design inference may be made.
- Science includes many design inferences in many fields to include archeology, history, paleontology, and anthropology.

LIFE: Specified Complexity

- The emergent hierarchy of LIFE from energy, cells, and systems to sociology/theology includes neurocognitive mechanisms of D&A and R/S.
- DNA exhibits 3 types of information: Shannon, Kolmogorov, and functional.

LIFE: Improbability

- 1. No Free Lunch theorem excludes neo-Darwinian complexity with a conservation of information
- 2. Biochemical “irreducible complexity” excludes neo-Darwinian evolution
- 3. Improbability of folded proteins (10^{-77})
- 4. Taxonomy supports common modular design ($\times 10^{3000}$) over common ancestry .

Inference to the Best Explanation

- Worldview must explain LIFE from non-life, complexity from simplicity, rationality from irrationality, information from chaos.
- Theism is favored over atheism, deism, polytheism, finite godism, panentheism, and pantheism.



Chapter Four: The Theology

Christian Theism Assumed

- Minimal Facts Historicity:
 1. The death of Jesus
 2. The empty tomb
 3. The eyewitnesses
 4. The transformation of the disciples
 5. Conversion of Paul
 6. Conversion of James
 7. Rapid spread of Christianity

Christian Doctrine and D&A

- Anselmian God (maximally great)
- Substantial view of the *imago Dei*
- Divine General and Special Revelation
- Sovereignty of God and moral accountability of humankind
- Incompatibilism and Molinism (1 Sam. 23:9-13)

Christian Doctrine and D&A

- Salvation through faith in Jesus Christ
- Indwelling and fullness of the Holy Spirit
- Every good and right is from God



A background image of a sunlit forest with tall trees and dappled light on the ground.

Response to Divine Revelation (RDR)

- RDR's to general revelation: nature and conscience
- RDR's to special revelation: living and written *logos* (possibly particular revelation)
- Positive RDR's are Degrees of Relative Holiness (DRH) for D&A (not soteriology)

Degrees of Relative Holiness

- There are an infinite number of DRH's that separate humankind from God.
- *No number of DRH's merit justification from sin.
- DRH's are immunizing and insulating from D&A.

Degrees of Relative Holiness

- Unhappy Atheist (UA)
- Happy Atheist (HA)
- Unhappy Christian (UC)
- Happy Christian (HC)



Happiness and Holiness

- The discipline of goodness and rightness separates an individual from corruption as a practice of holiness.
- “Synthetic Happiness”:
Dan Gilbert 2004
 - The unbound condition is not conducive to synthetic happiness.

Happiness and Holiness

- Boundaries are the goodness and rightness of God.
- Positive emotions/disciplines (Galatians 5:22)
- Engagement: live for God and others (Galatians 2:20; Mark 12:28-31)

Happiness and Holiness

- Relational: incendiary fellowship (1 Thess. 5:11)
- Meaning: glorification of God (1 Cor. 10:31)
- Achievement: a grace of God (2 Cor. 10:17-18).

Happiness and Holiness

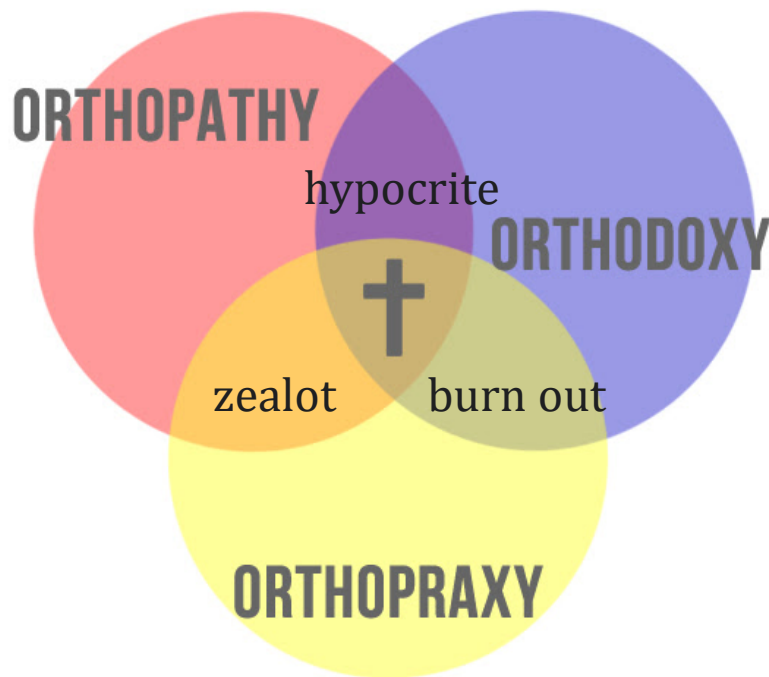
- Renewing the mind
 - Discern the will of God (Romans 12:2)
 - Take captive thoughts (2 Corinthians 10:5)
 - Perfect peace of those mindful of God (Isaiah 26:3)
 - Renewal of the spirit (Ephesians 4:20-24)
 - Abstinance of evil (1 Thess. 5:21-2)

Happiness and Holiness

- Pauline positive thinking predates CBT (Phil. 4:4-9)
 - Rejoice in the Lord always
 - Be anxious for nothing
 - Be thankful in prayer and supplication
 - Think only about the lovely, admirable, excellent, and praiseworthy.

Discipleship

- Orthodoxy: true doctrine
 - Logos (logic/reason)
- Orthopraxy: true practice
 - Ethos (ethics/morality)
- Orthopathy: true emotion
 - Pathos (emotion)



Happiness and Holiness

- Holiness is a solution to D&A.
- The imputed holiness of Christ provides, not just temporal happiness, but eternal joy and peace through a restored fellowship with God.