

Mindsight and an Interpersonal Neurobiology of Clinical Assessment

Daniel J. Siegel, M.D.
Mindsight Institute



A TRIANGLE OF HUMAN EXPERIENCE

MIND

BRAIN



RELATIONSHIPS

A Working Definition of a core aspect of the Mind

An Embodied and Relational

Process that Regulates

The Flow of Energy and Information

(An Emergent Property that arises from the interactions of elements of a system—i.e. from the flow of energy within embodied neural activity and relational communication)

Two Questions of Consilience

- Is the “**Self-Organization**” of complex systems a concept/process/*emergent property* parallel to the “**Self-Regulation**” examined in the field of psychopathology?
- If integration—the linkage of differentiated elements of a complex system—“maximizes complexity” and enables flexible, adaptive, coherent, energized and stable states to emerge, is this “integration” a universal mechanism of health?

Observable Large and Small Scale Patterns of Systems

- Complex systems ***not*** maximizing complexity (not differentiated and/or linked, i.e. not integrated) ***move toward Chaos or Rigidity.***
- Clinical presentations involve Chaos and/or Rigidity: Examples, PTSD and Bipolar Disorder
- If the DSM IV reveals symptoms of syndromes each characterized by Chaos, Rigidity or both, could our psychiatric disorders represent a range of impediments to integration?

Integration

The Linkage of
Differentiated Elements
of a System

The River of Integration



Major Mindsight Principles

- Mind viewed as a self-organizing emergent property, a process that *REGULATES energy and information flow*
- The mind is both EMBODIED and RELATIONAL
- Regulation entails MONITORING and MODIFYING
- Harmony emerges from **integration**—*the linkage of differentiated elements of a system*
- **Chaos and/or Rigidity** result from impaired integration

DSM IV: Chaos and Rigidity and Examples of Impaired Neural Integration

- Developmental Trauma - MRI (Teicher et al)
- Autism, Schizophrenia - rsfMRI (Raichle et al)
- Bipolar Disorder – MRI (Blumberg et al)
- OCD – PET (Baxter, et al)

REGULATION

Coordination and Balance: If not → Chaos and/or Rigidity

- “Over Arousal and Under Arousal” a regulation approach to rigidity and chaos

The essential elements of regulation include:

- Monitoring
- Modifying

A TRIANGLE OF WELL-BEING & RESILIENCE

MIND

BRAIN



RELATIONSHIPS

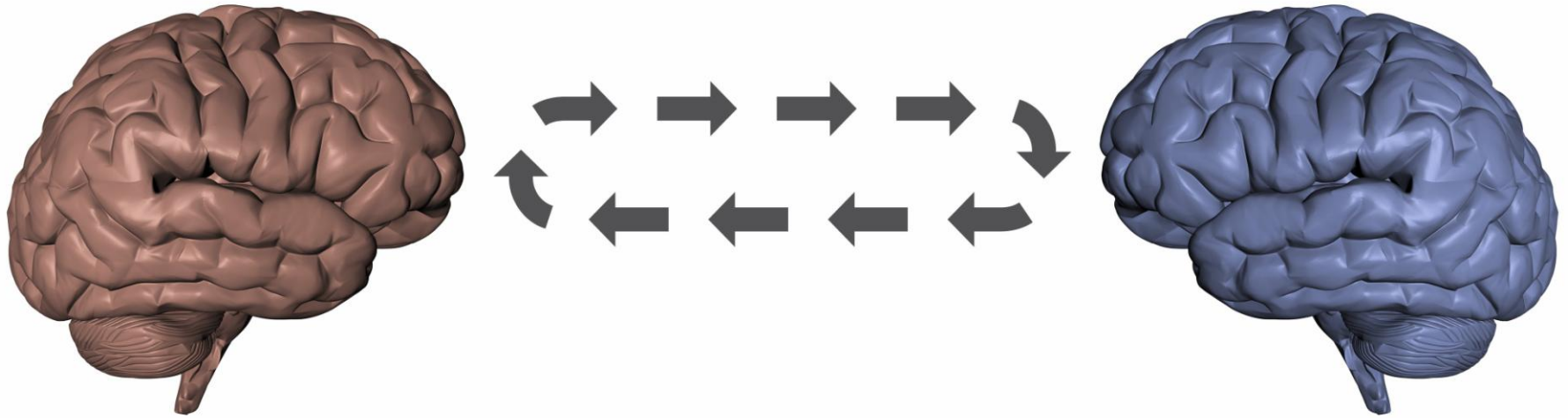
Nine Domains of Integration

- Consciousness
- Bilateral
- Vertical
- Memory
- Narrative
- State
- Interpersonal
- Temporal
- Transpirational

A Possible Framework of Health?

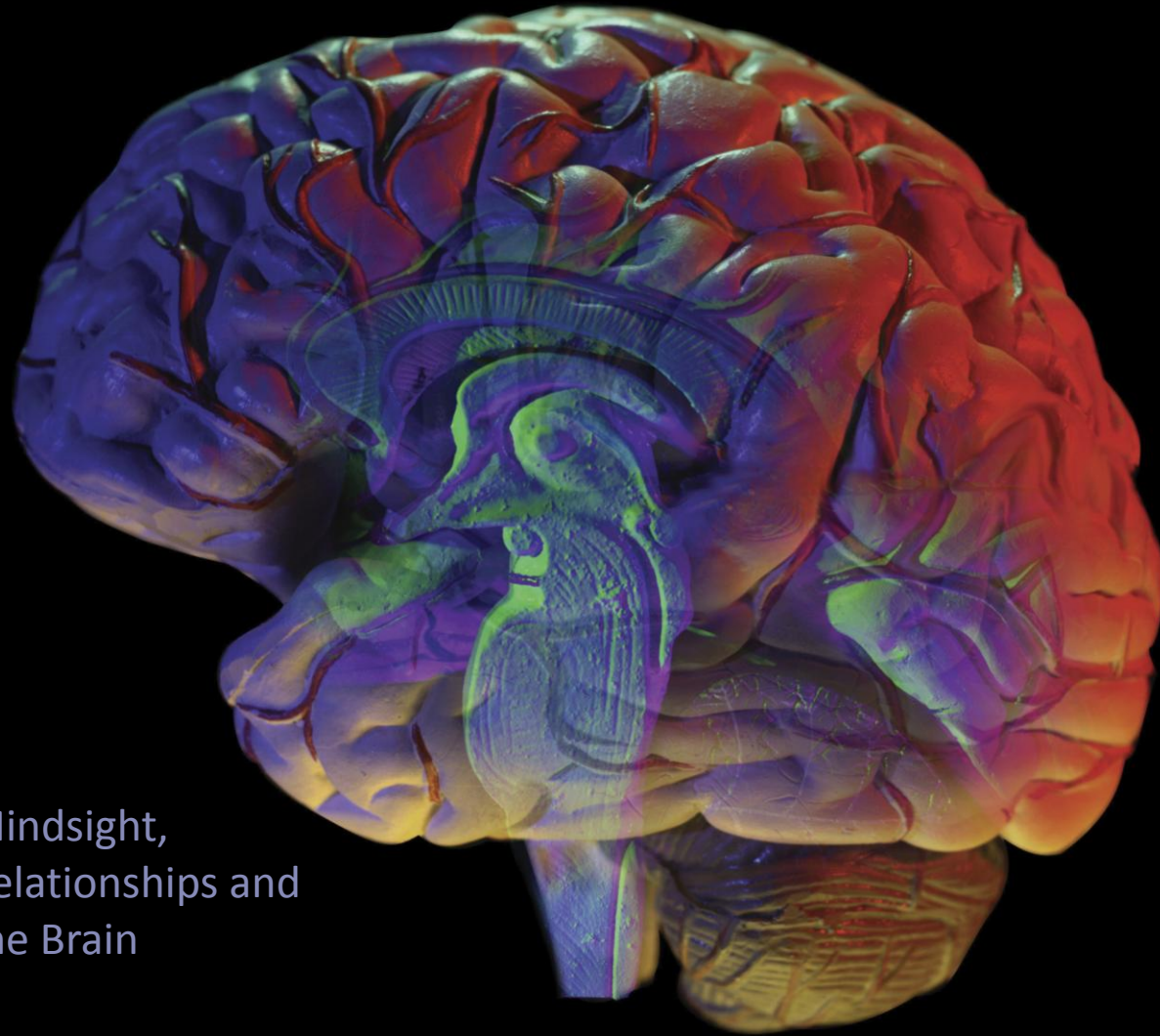
- **Health** emerges from Integration
- “**Unhealth**” emerges from impediments to integration in the form of blockages to differentiation and/or linkage.
- **Assessment** evaluates chaos and/or rigidity.
- **Causation** can be genetic, infectious, toxic, and/or experiential (including trauma, developmental challenges).
- **Therapy** is *integrative* and can involve medications, neuroplastic training practices, SNAGging interventions, & fundamental relational elements of psychotherapy.

Mindsight and Neural Integration



Clinical Assessment

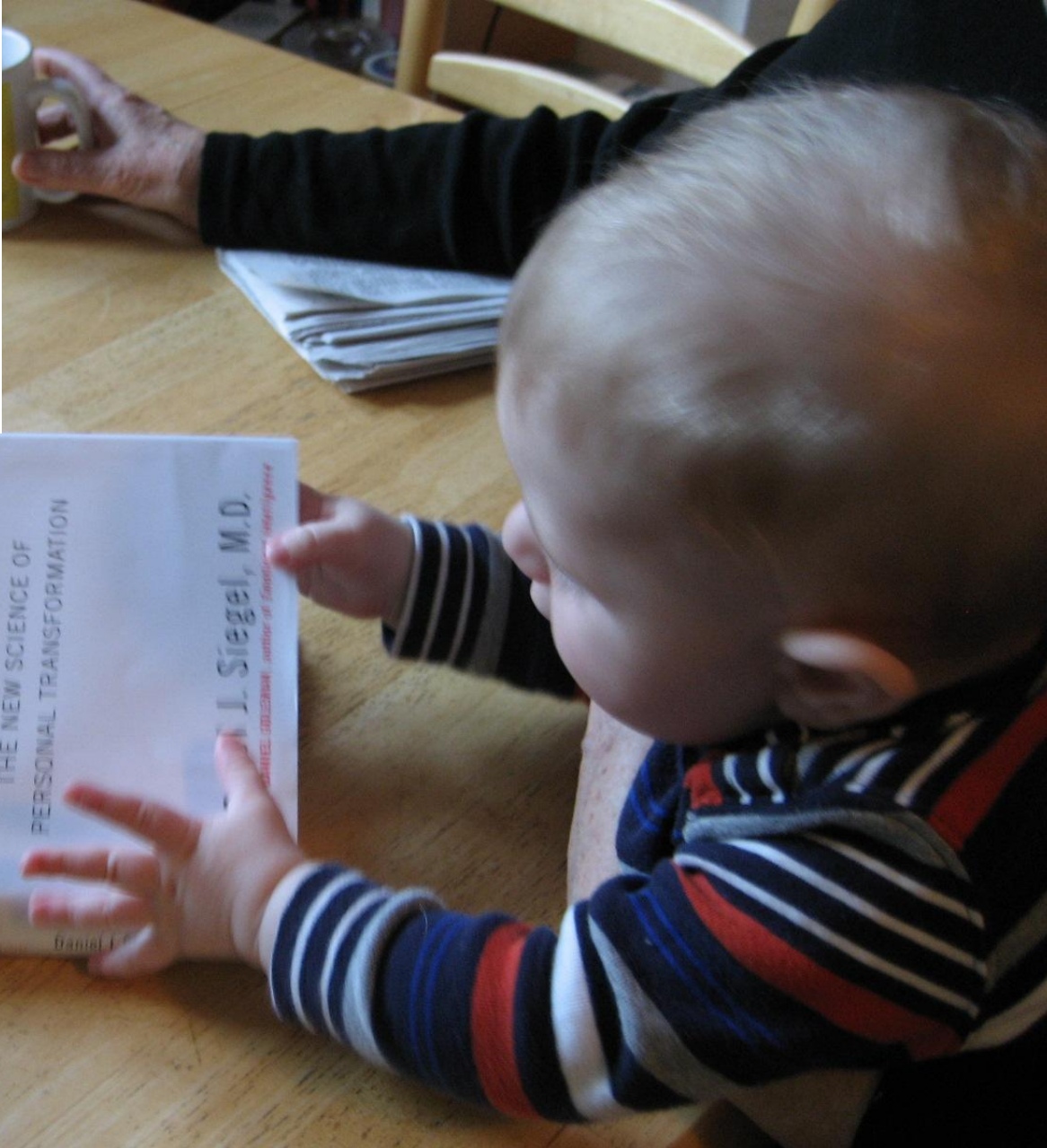
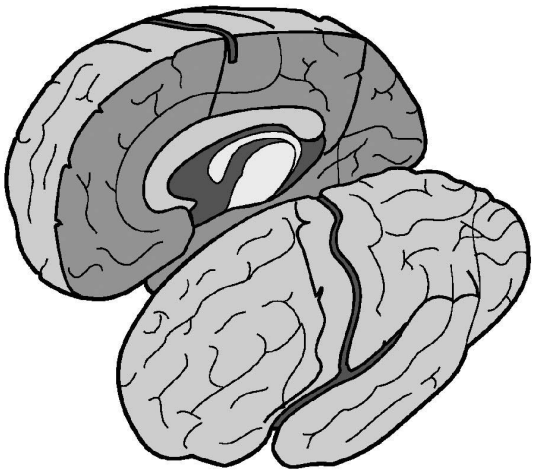
- Looking for Chaos and/or Rigidity
- When found, indicate impediments to integration
- Assessment then moves to question, “which domain of integration is impaired?”
- When the domain is identified, detailed analysis of that domain is focus of assessment



Mindsight,
Relationships and
the Brain

The Central Role of the Integrating Middle Prefrontal Cortex:

- Bodily Regulation
- Attuned Communication
- Emotion Regulation
- Response Flexibility
- Fear Modulation
- Insight
- Empathy
- Morality
- Intuition



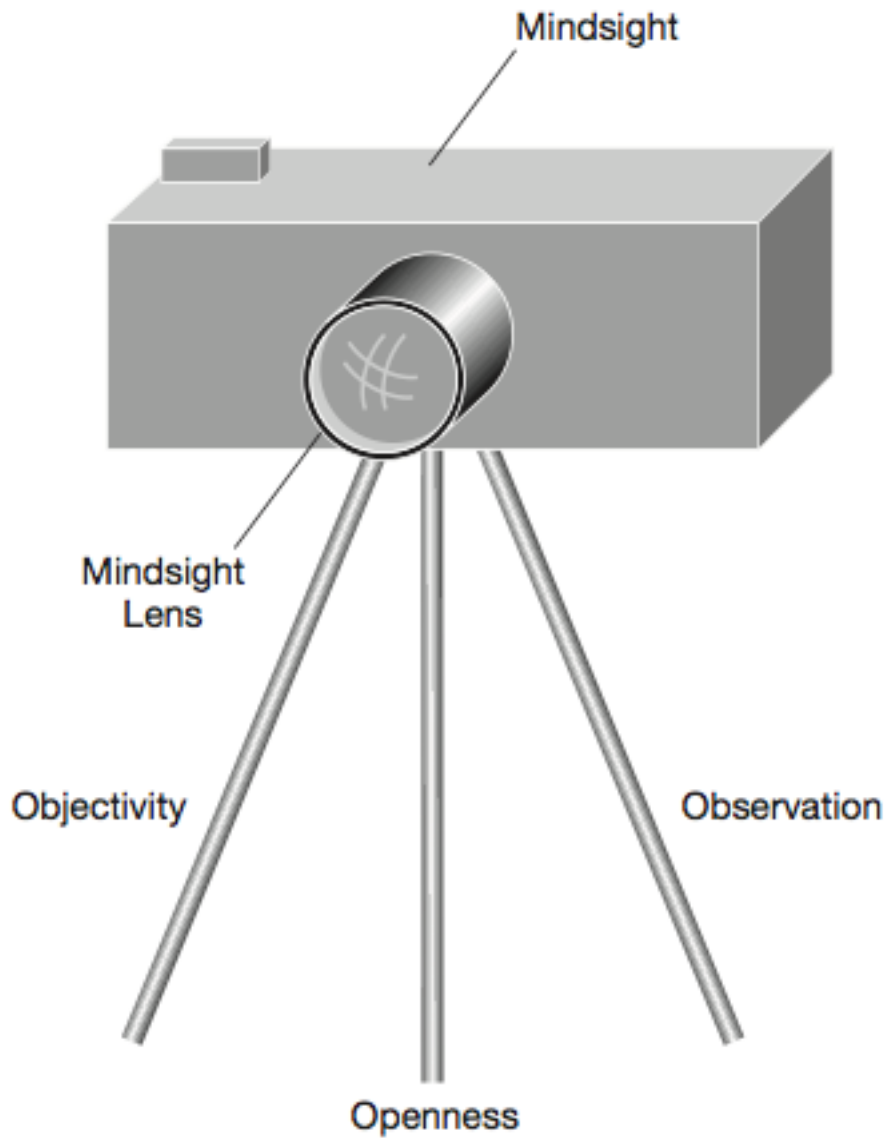
Integration, Psychotherapy and Neuroplasticity

- “Effective Therapy Changes the Brain” can be restated as “Effective Therapy Integrates the Brain”
- Integration creates Harmony
- Regions are Differentiated and then Linked
- Impairments to Integration lead to Chaos and/or Rigidity
- The Nine Domains of Integration
- Strategies for Enhancing Neuroplasticity

Ways to Change a Brain

- **Mechanisms of Change:**
 - Synaptogenesis
 - Neurogenesis
 - Myelinogenesis
 - Epigenesis
- **Strategies of Change:**
 - The Focus of Attention activates specific circuits
 - A Sense of Trust enhances receptive learning
 - Memory Retrieval as a Memory Modifier
 - Unlearning and Learning
 - Deep Practice and Skill Training

The Integration of Consciousness

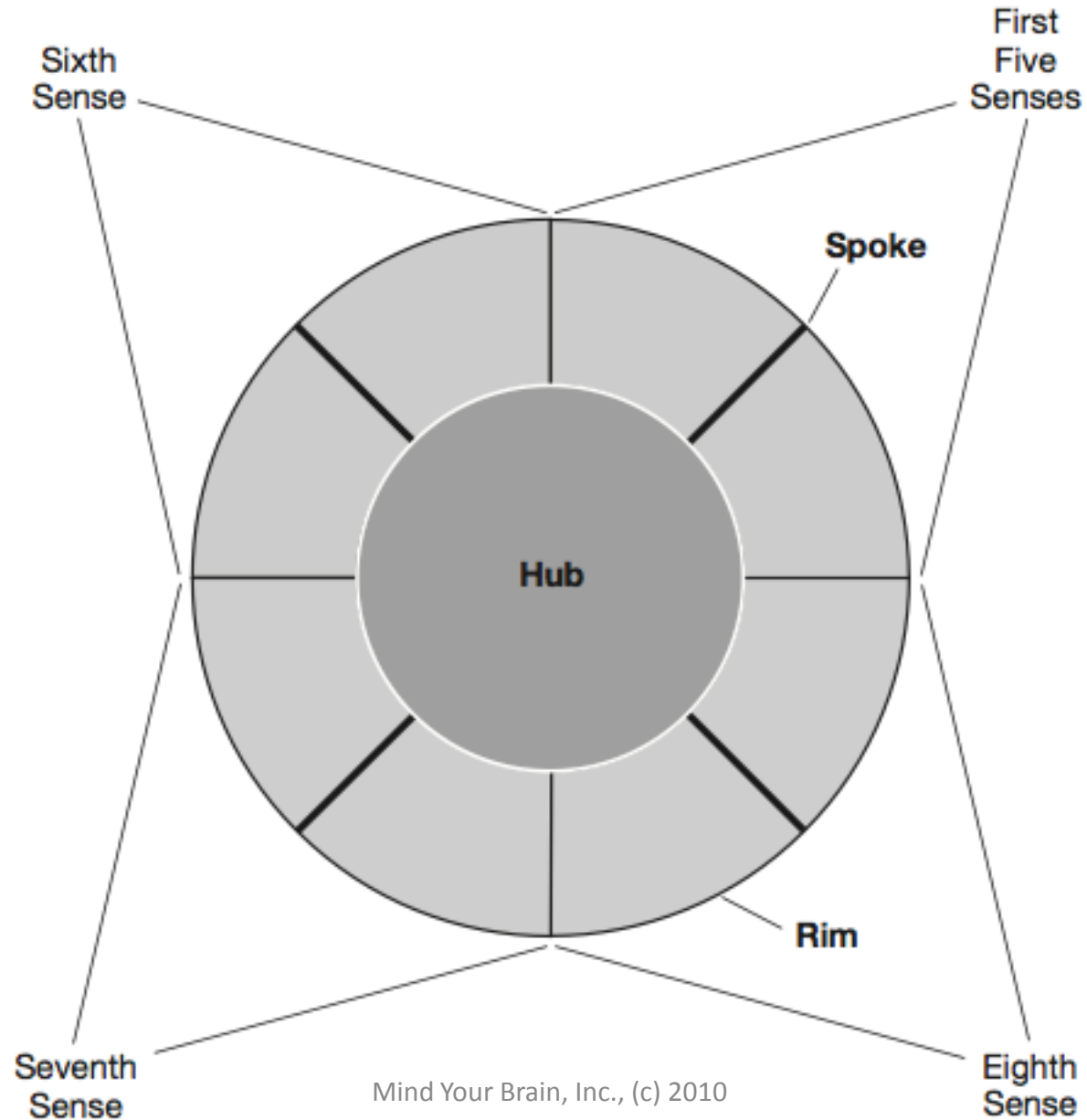




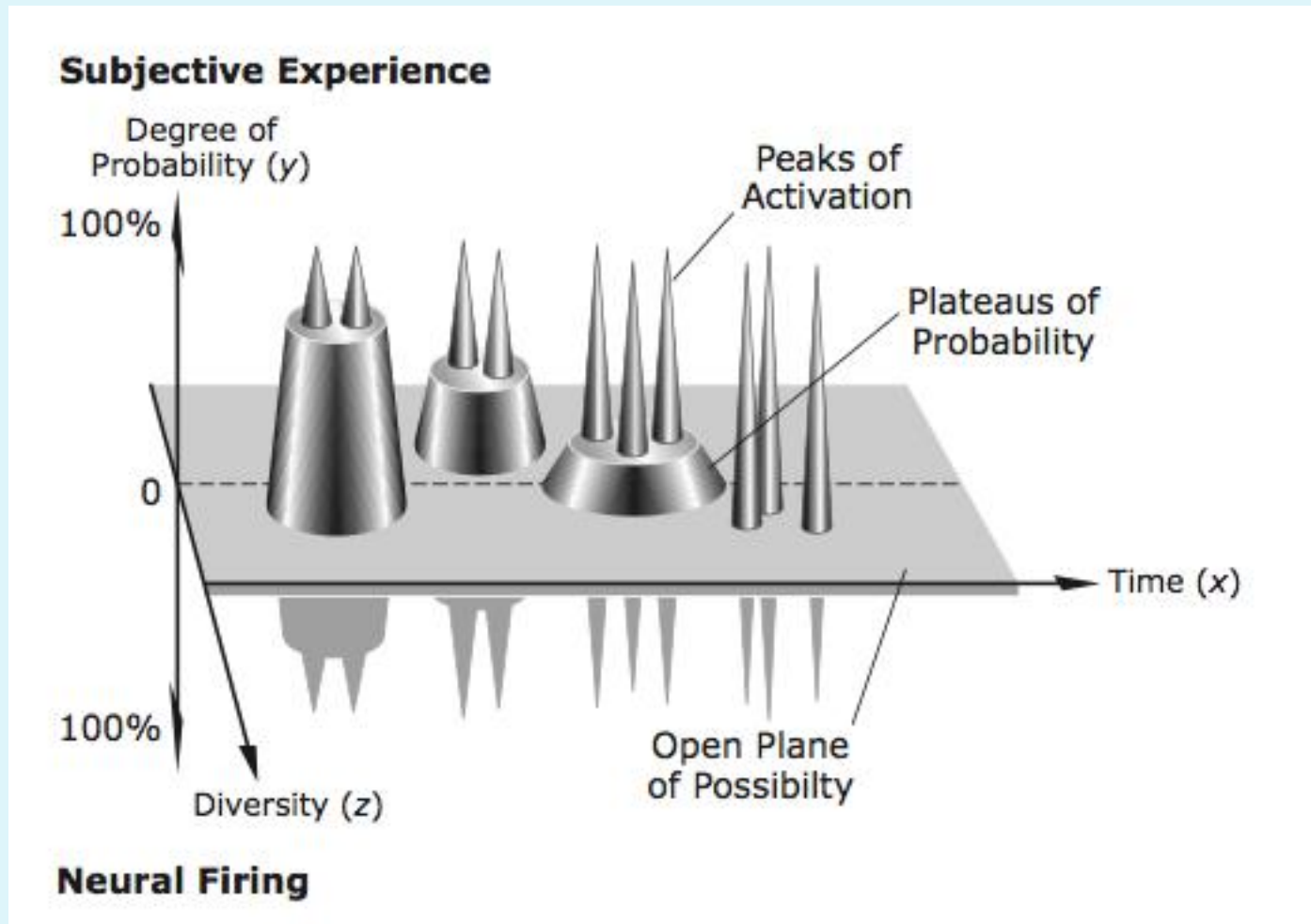
Mindfulness Training: Using the focus of attention to transform...

- The Brain (Davidson et al) (Lazar et al)
- The Immune System (Davidson et al)
- Sense of Well-Being (Kabat-Zinn et al)
- Attention (Jha, et al)
- Relational Function (Shapiro, et al)

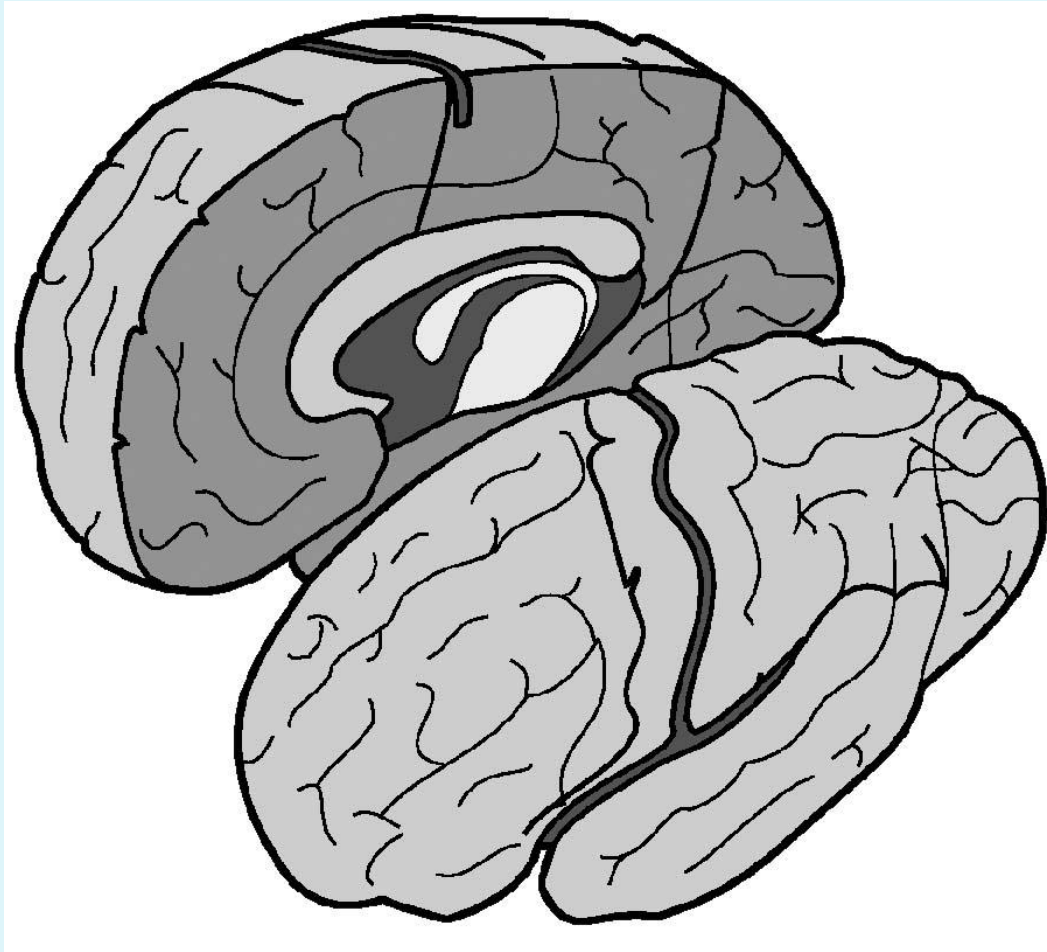
The Wheel of Awareness



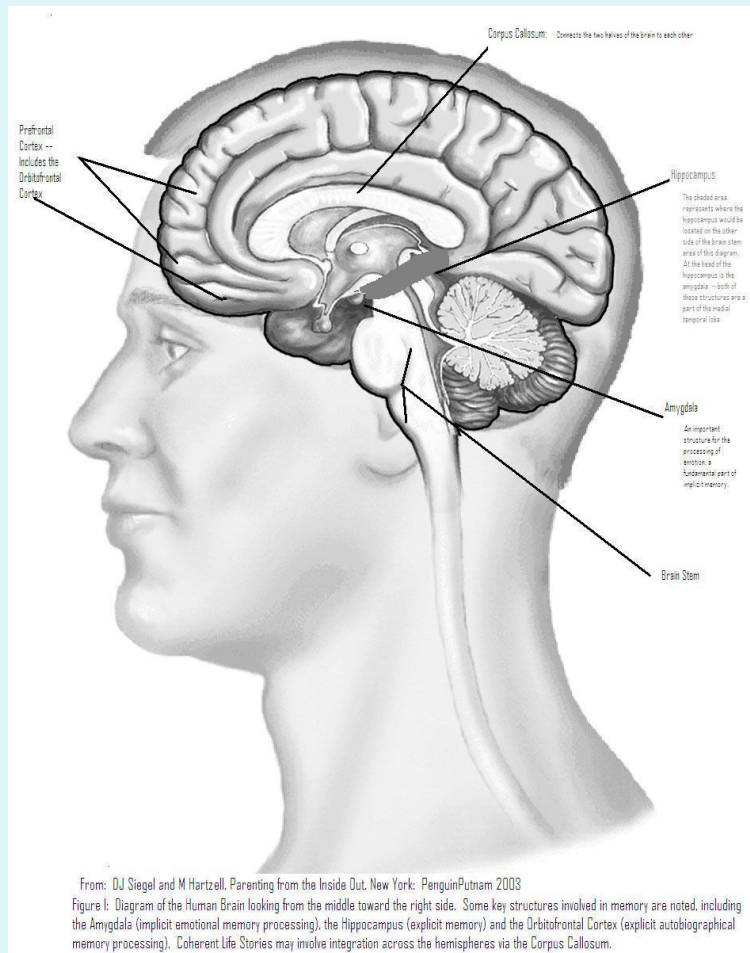
The Plane of Possibility



Bilateral Integration



Vertical Integration



Memory Integration

Implicit and Explicit Memory

- Implicit Memory
 - Perception-Emotion-Sensation-Behavior
 - MentalModels/Schema
 - Priming
- Explicit Memory
 - Factual Memory
 - Episodic Memory (self in an episode of time)
(Autobiographical Memory)

Narrative Integration

Homo Narrativas

- We are continually attempting to “make sense” of our interpersonal and internal world
- Is this the “default mode” or “resting state”?
- Implications of resting state studies for health
- Making sense as an integrative process

State Integration

- Intra-state
- Inter-state
- “Self-State”
- “We-state”

Interpersonal Integration

Attachment I: Relationships in Research (ISS: Infant Strange Situation) Studies

Relationship Type

- B - Secure
- A - Avoidant.....
- C - Ambivalent
- D - Disorganized.....

Parenting Behavior

- Responsive, Consistent
- Rejecting, Distant
- Inconsistent/Intrusive
- Frightening, Confusing, Fearful

Attachment II: Adults Making Sense of Their Lives (Adult Attachment Interview)

Adult Narrative-----	→ Child Attachment
• F – Free/Secure-----	-----Secure
• Dis – Dismissing-----	-----Avoidant
• E-Entangled, Preoccupied	-----Anxious
• U–Unresolved-----	-----Disorganized
Trauma or Grief	

Attachment III: What do the different types of adult stories sound like?

- **Free** - flexible, coherent, self-reflective, balanced perspective
- **Dismissing** - incoherent, inflexible, minimize emotional significance, insist on lack of recall
- **Entangled** - preoccupation with past intrudes on present, intense idealization
- **Unresolved** - disorganization, disorientation around issues of grief or trauma

Secure Attachment Promotes:

- Flexible self-regulation
- Prosocial behavior
- Empathy
- Positive sense of emotional well-being and self-esteem
- Coherent life-story

Temporal Integration

Time and the Brain

Integration as Embracing of Opposites

- Certainty versus Uncertainty
- Permanence versus Transience
- Immortality versus Mortality

Transpirational Integration

Tran-Spi-Rational

- Across-Breathing
- Integration of Integration
- “Spirituality” as the seeking and creation of meaning and the awareness of being interconnected with a larger whole

Principles of Neuroplasticity

- 1. Relationships
- 2. Sleep
- 3. Nutrition
- 4. Aerobic Exercise
- 5. Novelty
- 6. Close Paying of Attention



The Triangle of Health:
Integration and
& the Cultivation
of Well-Being

Mind Your Brain, Inc., (c) 2010