Living As A Whole Being

How Connected Are We?

Whole-System Economics

Tools For The Journey

Whole-System Governance

What Time Is It?

Street-Smarts For Change Agents

Foundation Stones
Outline of History

- **Tribal**
  - farming
    - 11,000 BCE

- **Empire**
  - 3500 BCE cities
  - Renaissance
    - 1500 CE

- **Planetary**
  - now
Culture As Interface

The World

<table>
<thead>
<tr>
<th>Material Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared Culture</td>
</tr>
<tr>
<td>Innate Human Nature</td>
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A Person

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Another Person

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</table>

Living things

The oceans

The atmosphere

The sun
Culture As Interface

innate human nature → culture ← wider world: human / nonhuman
Two Literacies

- hOS literacy
- innate human nature
- culture

- systems literacy
- wider world: human / nonhuman
Human Operating System

Feature Phone
User Point-of-View

Feature Phone

built-in apps

hardware
Human Operating System

Developer Point-of-View

built-in apps
operating system
hardware

Feature Phone
Human Operating System

built-in apps
operating system
hardware

Feature Phone

Smart Phone
Human Operating System

Feature Phone
- built-in apps
- operating system
- hardware

Smart Phone
- built-in apps
- user-added apps
- operating system
- hardware

30

Over a million
Human Operating System

Many Animals

- instinctive behaviors
- “operating system”
- physical body

Humans

- instinctive behaviors
- learned behaviors and knowledge
- “operating system” (hOS)
- physical body

Cultural “Apps”
Working Memory Experience

• I’ll speak some numbers
• You add them in your head
• Raise your hand to report how hard it was for you:
  ✴ Easy – raise your hand all the way up
  ✴ Challenging – part way up
  ✴ Couldn’t do it – don’t raise your hand at all
Working Memory Experience

4±1 chunks at a time
Working Memory Experience

2 1 5
8 2 4
7 7 6
3 2 3

5 + 4 = 9
9 + 6 = 15
3 + 15 = 18
Exploration & Break
Exploring the hOS

- Scope of mind
- Patterns
- Optimal zone
Scope

Mind

- thought
- perception
- subconscious
- emotion
- will
- habits
- memory
- imagination

and more …
Scope

Mind

- instinctive behaviors
- learned behaviors and knowledge
- “operating system” (hOS)

physical body

Humans
80% in cerebellum
19% in cerebral cortex
1% in brainstem
0.1% in spinal cord
0.1% in the gut
Biology of Mind – Neurotransmitters

**ADRENALINE** \( \text{C}_{9}\text{H}_{13}\text{NO}_{3} \) - **fight or flight**

**NORADRENALINE** \( \text{C}_{8}\text{H}_{11}\text{NO}_{3} \) - **concentration**

**DOPAMINE** \( \text{C}_{8}\text{H}_{11}\text{NO}_{2} \) - **pleasure**

**SEROTONIN** \( \text{C}_{10}\text{H}_{12}\text{N}_{2} \) - **mood**

**γ-AMINOBUTYRIC ACID** \( \text{C}_{4}\text{H}_{9}\text{NO}_{2} \) - **calming**

**ACETYLCHOLINE** \( \text{C}_{7}\text{H}_{16}\text{NO}_{2}^{+} \) - **learning**

**GLUTAMATE** \( \text{C}_{5}\text{H}_{9}\text{NO}_{4} \) - **memory**

**ENDORPHINS** \( 20+ \text{ types in the human body} \) - **euphoria**
Biology of Mind – Hormones

- **Hypothalamus** (brain region controlling the pituitary gland)
- **Thyroid gland** (affects metabolism, among other things)
- **Pituitary gland** (secretes many different hormones, some of which affect other glands)
- **Parathyroids** (help regulate level of calcium in the blood)
- **Adrenal glands** (help trigger the fight-or-flight response)
- **Pancreas** (regulates the level of sugar in the blood)
- **Testis** (secretes male sex hormones)
- **Ovary** (secretes female sex hormones)
Biology of Mind – Brain

Neocortex
many functions...

Limbic System
emotions, memory

Brainstem
homeostasis
Biology of Mind – Brain

- **Motor Cortex**
  - muscle motions

- **Sensory Cortex**
  - body sensations

- **Parietal Lobe**
  - "where" pathway

- **Occipital Lobe**
  - vision

- **Cerebellum**
  - coordinating motion

- **Frontal Lobe**
  - executive functions

- **Temporal Lobe**
  - language
  - "what" pathway
Human Operating System

Cognitive Modes

- Kinesthetic
- Somatic

Facets of Awareness

- Affect
- Pattern
- Awareness

Memory

Visual-Spatial

Linguistic-Linear
Human Operating System

Self with choice ...

awareness

... in space and time
Awareness

- parts of speech
- associated word(s) or phrase(s)
- conscious

- external sense info
- spacial context
- word(s) or phrase(s)

- internal sense info
- concept(s)
- temporal context

- affect
- history

- analogies
- associated concepts

- subconscious
Mind-Bundles

- external sense info
- spacial context
- internal sense info
- concept(s)

conscious
- affect
- word(s) or phrase(s)
- temporal context
- history

subconscious
- parts of speech
- associated word(s) or phrase(s)
- analogies
- associated concepts
Conscious and Subconscious

conscious

subconscious
Thinking, Fast and Slow

- Fast associational thinking
- Subconscious

- Slow reflective thinking
  - Monitor & modify
  - Process & result

- Process
- Result

More process
Human Operating System

Facets of Awareness

- linguistic-linear
- visual-spacial
- kinesthetic-somatic

- affect
- pattern
- awareness
- memory
Affect

- Territory of emotions and feelings
- Always present
- Diverse
- Motivational
- Changeable
Human Operating System

Facets of Awareness

- kinesthetic-somatic
- affect
- pattern
- awareness
- memory
- linguistic-linear
- visual-spacial
Memory - Storage

sensory or inner experience → personal filter → short-term memory

lost → consolidation

long-term memory

- knowing that (declarative)
  - events (episodic)
  - general knowledge (semantic)
  - habits

- knowing how (procedural)
Memory - Recall

• Triggered by association
• Activates same parts of brain as original
• “Imagining the past”
• Less accurate than we think
Human Operating System

Facets of Awareness

- kinesthetic-somatic
- affect
- pattern
- awareness
- memory
- linguistic-linear
- visual-spacial
Pattern

• Just like memory, there are:

  ✴ Temporal patterns – scenarios, if this then that
  ✴ Semantic patterns – definitions, meaning
  ✴ Procedural patterns – habits, action steps
Human Operating System

Cognitive Modes

- kinesthetic-somatic
- affect
- pattern
- awareness

- memory

- visual-spacial
- linguistic-linear
Empire to Planetary

Diagram showing changes in visual and kinesthetic proportions.
O c julico thu nadja uwar luzzino thanne alle the oqbui diq the God zeunuapkta obap eqdun. Endi thu nadja quad to themu uuribe. Huiu pajbad God wi that zi ne atin fan eozhuzuetjumu bonne innan Papadiprum. That uurp andwujjida. Fan thepo bomo uuzanche the pind in Papadiprum uui etad, endi fan thep boner uuzanche. The is an midde zaydun. God bebad up that uui ne atin, nhwuzhatj uui thena bon ne andhjmmu the uui puulitin. Tho quad thu nadja eft to themu uuribe. Ne pi zo zapolico dod. Thoh the zi fan themu bonne eten. Ac God uuet zuumpto that uuwaph ozum pind zeopanod in po huuljcumu daze po zi etad fan themu home, endi thanne zi uind engulm zelico umtandi eozhuzuetj ze sod ze uibil. Tho shejat that uuw that the bon uwar god to etanne. Bi themu the piu thuhtj. Endi from to ozum endi luaqto to zejhtje. Endi tho gemen fan thep boner uuzanche endi zeat endi padla piu uureke. He at tho. Endi no bethho ozum uuwupun zeopanod. Piu andjundun tho that piu nacod uuapiu. Endi puuundun in ficolp. Endi uuaphtun in bjecop.

Linguistic-Linear

• Strengths: orderly, easy, quick, flexible, good for everyday communications

• Weaknesses: linear, 4 chunks, low-resolution, categorical thinking, symbolic representation leads to miscommunication

• Time as a sequence of events; works for long time-spans
Visual-Spatial
Visual-Spacial

- **Strengths:** easy to receive, huge simultaneous info, gradations, relationships

- **Weaknesses:** more effort to create, no story

- **Time as a sequence of images:** works for short time-spans
Kinesthetic-Somatic
Kinesthetic-Somatic

• Strengths: easy access to habits and affect, great support for other modes, source for basic metaphors

• Weaknesses: hard to translate into words and categories

• Time as embodied rhythm and flow
Colors and Modes

This chart shows the dominant color names over the three fully-saturated faces of the RGB cube (colors where one of the RGB values is zero).
Colors and Modes
Colors and Modes
Exploration & Intermission
Patterns

Scenarios

Habits

Definitions
Patterns

- The water we swim in and don’t see
- Perception recognizes familiar patterns and creates new ones
- Memories are stored as patterns
- Thinking is exploring and modifying patterns of ideas
- Habits are patterns of action
Patterns – Based On Experience

conscious

- external sense info
- spacial context
- internal sense info
- concept(s)

- affect
- word(s) or phrase(s)
- temporal context
- history

subconscious

- parts of speech
- associated word(s) or phrase(s)
- analogies
- associated concepts
Patterns – Based On Experience

Foot sentences
Hand sentences
Mouth sentences

leg-related word  arm-related word  face-related word

Louder Than Words © 2012
Patterns – Based On Each Other

Generalization

color

Concept

red

Direct Experience

blue

Direct Experience
Patterns – Based On Each Other

Combination

Concept
Metaphors and Frameworks

- They are the super-nodes in the network of patterns
- Metaphorical sources tend to be concrete experiences
- “Frameworks” include belief systems, mental models, ideologies, sets of working hypotheses, paradigms, etc.
- A framework is a set of concepts that explains “how things work”
Metaphors and Frameworks

• Many patterns get interpreted through metaphors or frameworks

• Especially important in scenarios and creating expectations

  * negotiations are like battles vs.
  * negotiations are like journeys

• Changes in metaphors and frameworks can have profound ripple effects
Metaphors and Frameworks

Categorical Thinking vs. Continuum Thinking

signal

noise
crossfade
Patterns – Objects

- Persons and things
- Early and important
- Hardwired for it
Patterns – Objects

• Metaphorical source for nouns
• Defined in space, independent of context
• Creates subconscious confusion with non-object nouns – networks, patterns, systems, abstract nouns, etc.
• Biases us against seeing relationships and their importance
Patterns & Reality
Patterns & Reality
Patterns & Reality

The diagram illustrates the spectrum of electromagnetic radiation, showing the relationship between energy and wavelength. The x-axis represents wavelength in nanometers (nm) and meters (m), while the y-axis shows frequency in Hertz (Hz). The spectrum includes gamma rays, X-rays, ultraviolet, visible light, infrared, microwaves, and radio waves. The diagram highlights the ultraviolet region within the visible light spectrum, indicating that ultraviolet light has a higher frequency than visible light. The energy increases as the wavelength decreases, with short wavelengths corresponding to higher frequencies and higher energy levels.
Patterns & Reality
Patterns & Reality
Patterns & Reality
Patterns & Reality

Vs.
Patterns & Reality

• Patterns about reality are partial, selective and provisional

• There is always more to learn

• Your experience is personal and unique
Exploration & Break
Optimal Zone

Integration and Synergy

You

affect

pattern

memory
Optimal Zone

High Performance

Neurological Arousal

Engaged, present
Optimal Zone

engaged

respected

appreciative
tolerant

creative

playful

generous

open

skillful

accepting

self-aware

curious

enthusied

productive

integrated

resourceful

forgiving

empathetic

peaceful

honest

at-ease

present
Optimal Zone

Performance

High

Low

Neurological Arousal

High

Get Tasks Done

Have Fun

And
Optimal Zone

Performance

Low

Neurological Arousal

High

- tired, hungry
- engaged, present
- over stimulated
Sympathetic-Parasympathetic

- mobilize
- fight or flight
- freeze
- rest and rebuild
- connect
Connection and Affinity

- Hardwired in
- Deep framework for safety
- Guide to decision-making
- Will die for
Optimal Zone

- dysregulated
- regulated
- dysregulated

Performance:
- Low
- High

Actions:
- freeze
- rest/rebuild
- connect
- mobilize
- fight/flight
Regulation in Infants

expresses need
gives response
## Regulation in Infants

<table>
<thead>
<tr>
<th>Caregiver is</th>
<th>Infant response</th>
<th>Child develops</th>
<th>Kind of attachment</th>
<th>Approx % of adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>responsive</td>
<td>has needs met</td>
<td>self-regulation &amp; empathy</td>
<td>secure</td>
<td>60%</td>
</tr>
<tr>
<td>erratic</td>
<td>tries harder</td>
<td>urgency &amp; distrust</td>
<td>anxious-resistant</td>
<td>20%</td>
</tr>
<tr>
<td>non-responsive</td>
<td>withdraws</td>
<td>distance &amp; distrust</td>
<td>anxious-avoidant</td>
<td>15%</td>
</tr>
<tr>
<td>fearful or abusive</td>
<td>circuits jammed</td>
<td>confusion</td>
<td>disorganized / disoriented</td>
<td>5%</td>
</tr>
</tbody>
</table>
Trauma

- Neurological overload
- If unresolved, leads to habitual defenses
- Persistent defense patterns re-groove the trauma and inhibit resolution
- Even minor stress contributes
- Defenses trigger out-of-proportion reactions, dysregulation
Defensive Behaviors

- Dissociation
- Projection
- Compensation
- Acting Out
- Transference
- Regression
- Rationalization
- Repression
- Displacement
- Hyper-vigilance
- Denial
Optimal-Zone Hygiene

• Name it to tame it
• Shake it off
• Breathe deep
• Wriggle your nose, lift your cheeks, laugh
• Choose kindness
• Hug, appropriate touch
• Eat or rest if needed
• Anything that releases held stress
Optimal-Zone First-Aid

• Get agreement and shared understanding in a relationship or a group beforehand

• Train before you need it

• Center yourself first, slow down, breathe

• Acknowledge the signal in the trigger and commit to coming back to it

• Connect through empathy, kindness

• Return the focus to the present through breathing, body sensing, contact
Optimal-Zone Healing

• Deeper work benefits from skilled guides
• Needed if you are going to access more of your optimal-zone potential
• Somatic and cognitive
• Changes your relationship with your past, present and future
Empire to Planetary

Trauma Based → Trauma Resilient
Standard of Ur (war side)
Optimal Zone

High Performance Heal, Have Fun And Get Tasks Done

Neurological Arousal High

Low Trauma Load

Low Performance
Thank You!

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