



# Life-Coherent Internal Medicine

A Maturana-Informed Framework for Clinical Reasoning,  
Physiology, and Capacity Restoration

Based on the Academic White Paper by Dr. Bichara Sahely

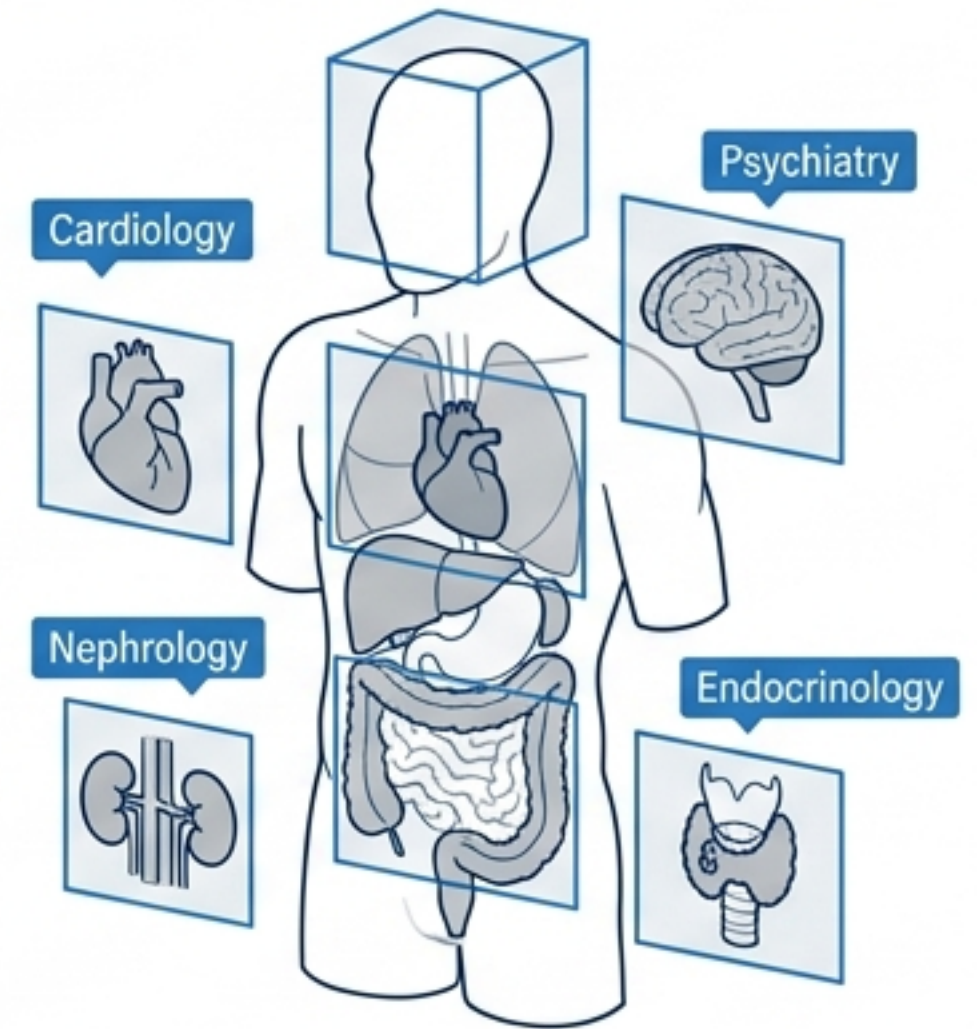
# The Triumph of Biomedicine



Internal medicine does not need to become less scientific to become more humane. It needs a deeper clinical grammar to prevent the living patient from disappearing among organ systems, laboratory targets, and clinical workflows.

- Diagnostic precision at the molecular level
- Pharmacological sophistication
- Extraordinary emergency management

# The Fragmented Machine



- Separated organ systems
- Isolated disease codes
- Disconnected clinical workflows

# The Evolution of Care Matrix

Biomedicine	Biopsychosocial Medicine	Life-Coherent Internal Medicine
<p><b>Focus</b></p> <p>Disease mechanisms &amp; pharmacology.</p> <p><b>Contribution</b></p> <p>Extraordinary diagnostic and emergency power.</p>	<p><b>Focus</b></p> <p>Biological, psychological, and social dimensions.</p> <p><b>Contribution</b></p> <p>Broadens the lens, but often lacks a unifying biological mechanism.</p>	<p><b>Focus</b></p> <p>Restoring life-capacity and structural coupling.</p> <p><b>Contribution</b></p> <p>Preserves biomedical rigor while asking what living capacity has failed, grounding social dimensions directly in biology.</p>

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**Key Takeaway: Life-Coherent care wraps around conventional care; it does not replace it.**

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# Structural Coupling Diagram



## Perturbation

Interventions (drugs, surgery, social support) do not 'instruct' the body; they perturb a living system that responds based on its own structure.

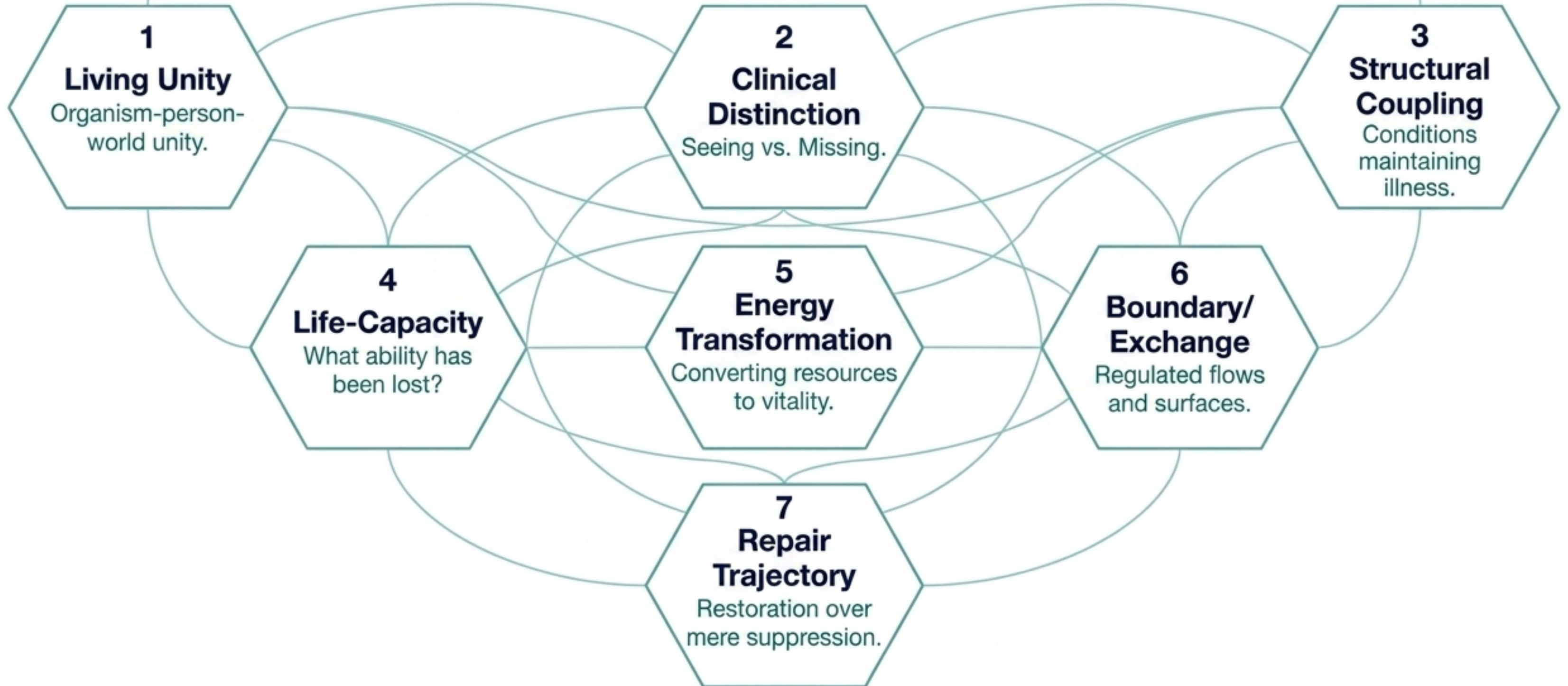
## Conservation

Illness is rarely located solely inside or outside the body; it is conserved through the recurrent interaction between the organism and its medium.

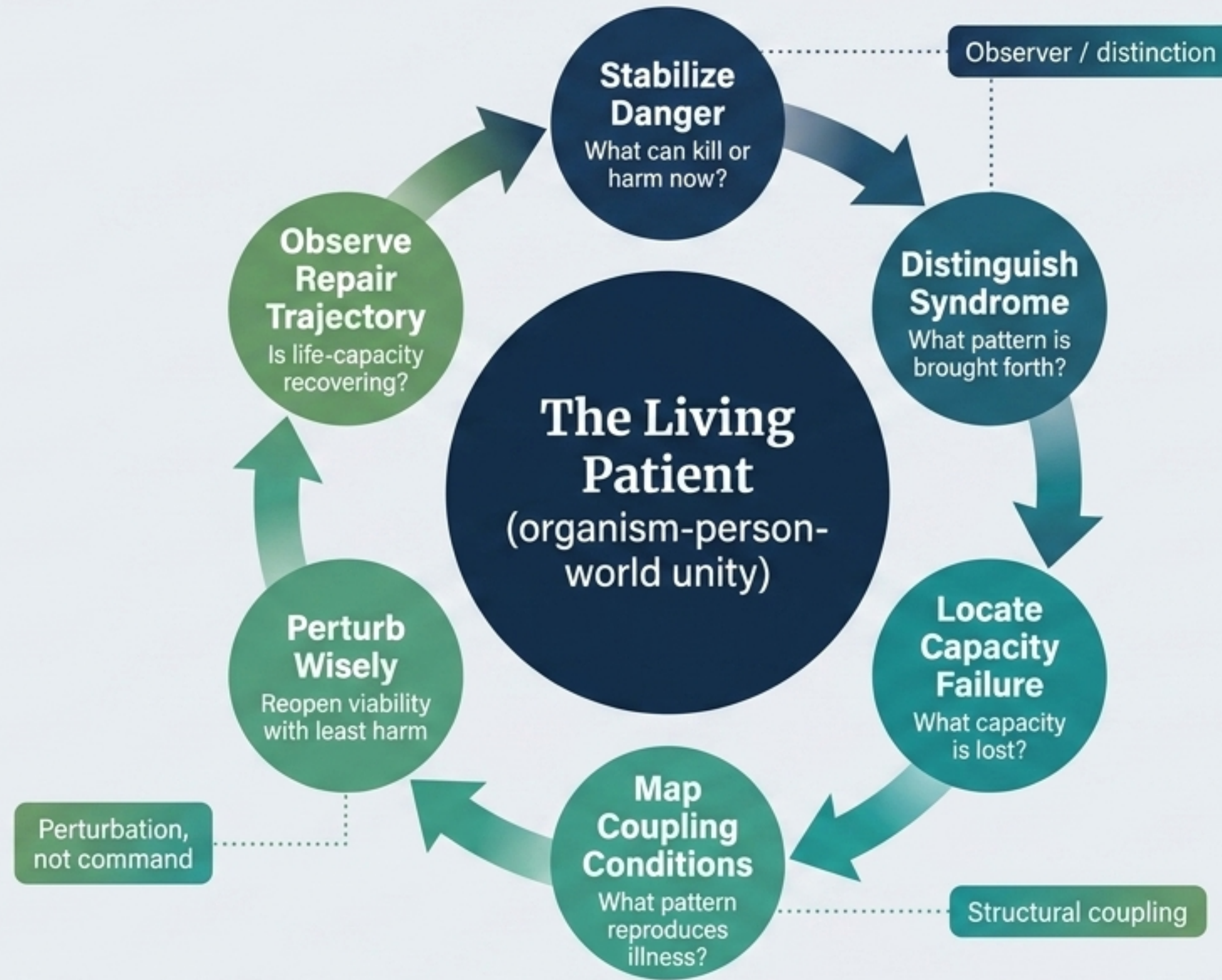
**The patient is a living unity, not a defective machine.  
Diagnosis is disciplined distinction-making, not merely label attachment.**

**The Life-Coherence Criterion:** Health is not merely normal numbers. It is the capacity of a living person to sustain, adapt, repair, regulate, relate, and participate meaningfully in life.

## The 7 Primitives



# From disease diagnosis to capacity restoration



**Life-Coherence Criterion: Restore viable life-capacity with minimum harm**

Clinical reasoning as a living cycle: stabilize, distinguish, locate, map, perturb, and follow repair.

# Capacity Systems Physiology

## Oxygenation

Lungs/Blood → Capacity to bring oxygen into usable relation.

## Circulation

Heart/Vessels → Capacity to distribute flow without collapse.

## Energy Transformation

Mitochondria/Metabolism → Capacity to convert resources into work and repair.

## Clearance

Kidney/Liver → Capacity to filter, excrete, and detoxify.

## Defense & Tolerance

Immune → Defend against threat while preserving tolerance.

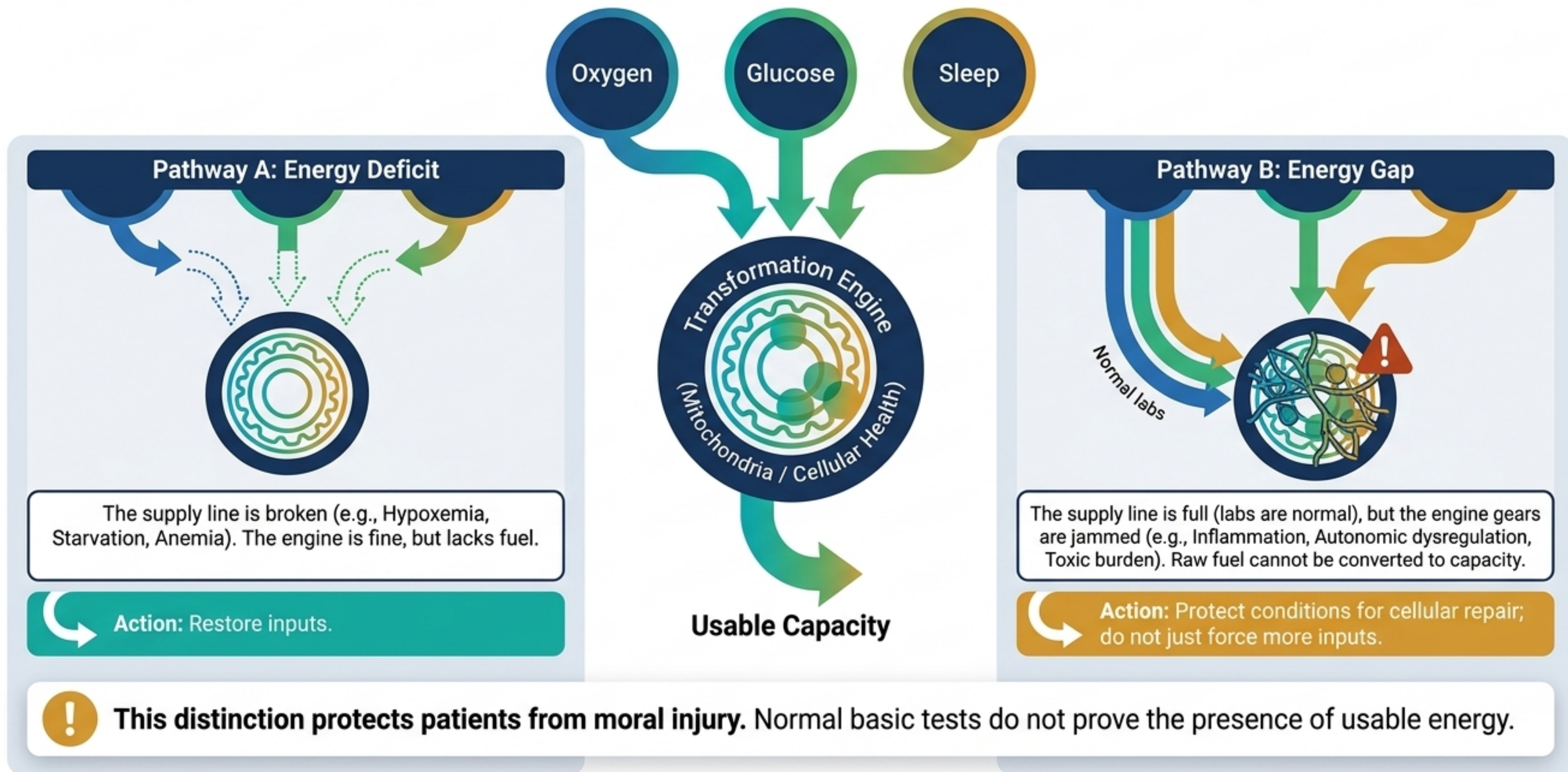
## Repair & Remodeling

Sleep/Nutrition → Restore structure post-disturbance.



**Patients do not experience separated compartments.**  
They present with **narrowed capacity systems.**

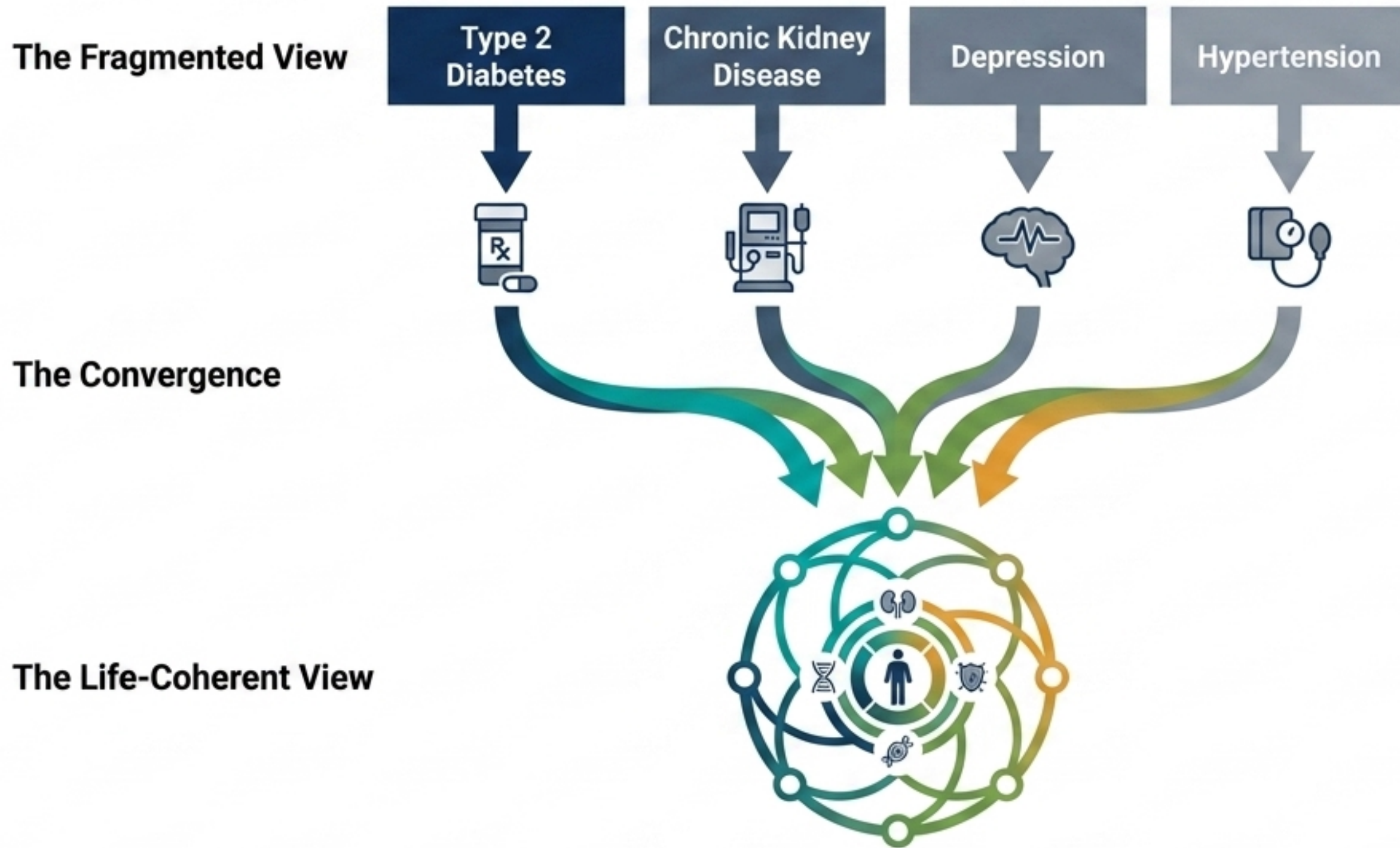
# The Energy Transformation Engine



# The Clinical Translation Matrix

	<b>Conventional Question</b>	<b>Life-Coherent Question</b>	<b>Repair Marker</b>
<b>Fatigue Made Easy</b>	What diagnosis explains low energy? (Anemia, Hypothyroid, Depression).	Why can this person not transform available conditions into usable capacity? Is it an energy gap or deficit?	Walking tolerance, fewer crashes, restored participation.
<b>Dyspnea Made Easy</b>	<b>Conventional Question</b>	<b>Life-Coherent Question</b>	<b>Repair Marker</b>
	Is this cardiac, pulmonary, metabolic, or psychogenic?	Where is oxygenation, flow, ventilation, acid-base regulation, or threat physiology failing?	Reduced work of breathing, improved exertion, fewer exacerbations.

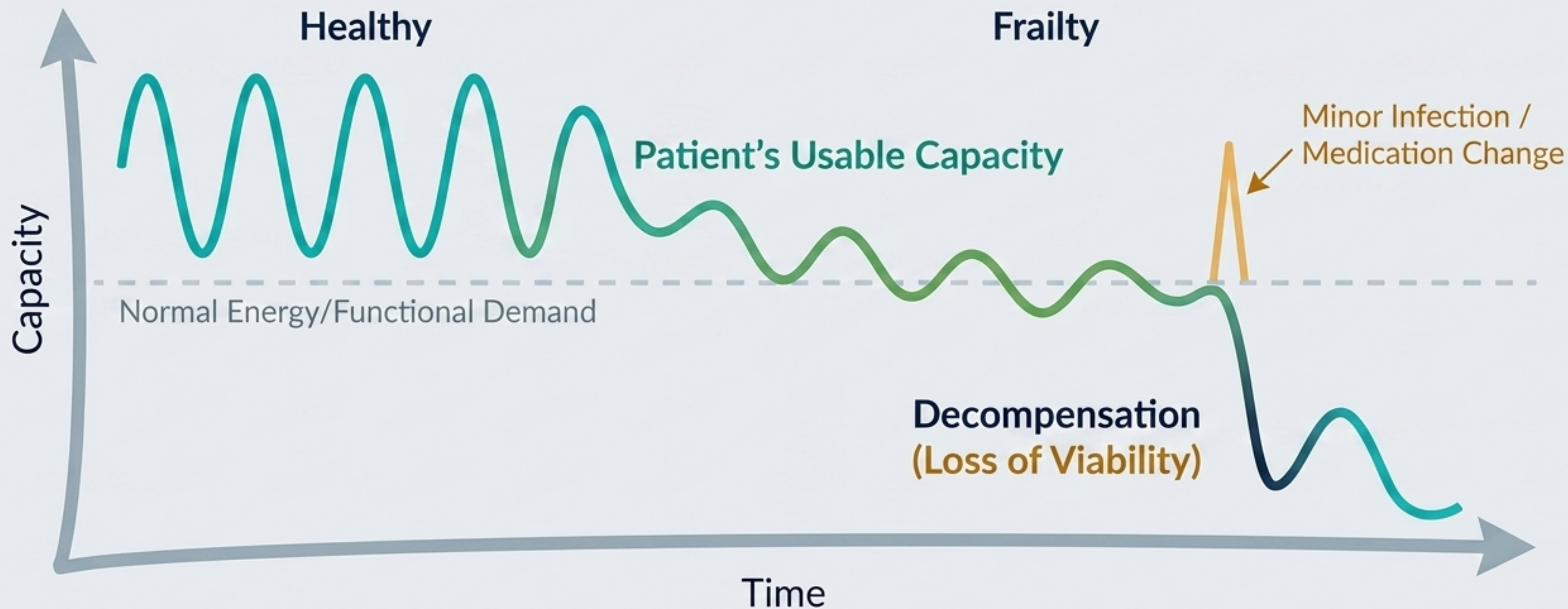
# Multimorbidity Reimagined



## A distributed narrowing of capacity systems

Multimorbidity is not a random collection of unrelated diagnoses. It is a conserved pattern of metabolic overload, vascular strain, inflammatory signaling, and repair-failure. The diagnosis list remains valid, but the capacity map reveals the living pattern.

# The Adaptive Reserve Threshold (Frailty)



Frailty is a systemic warning that ordinary interventions may become excessive perturbations unless matched to the patient's remaining reserve.

# The Brittle List

**Method:** Simplify by compression.

Memorize lists, algorithms, acronyms.

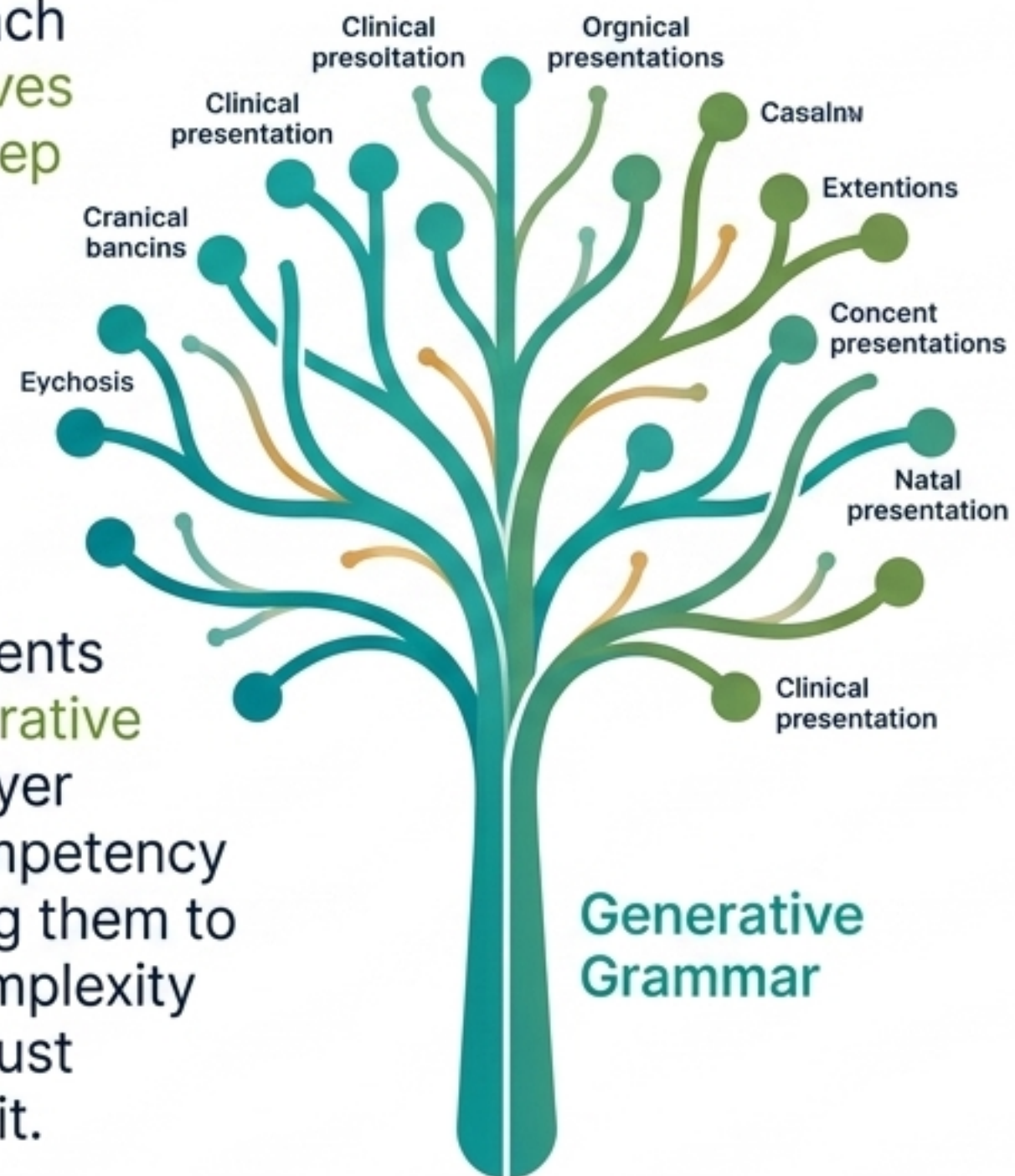
**Result:** Students know 10 causes of chest pain but lack the grammar to understand what chest pain means systemically.



# Generative Distinctions

**Method:** Teach the 7 primitives and the 6-step loop.

**Result:** Students learn a generative reasoning layer beneath competency lists, allowing them to organize complexity rather than just memorizing it.



# Life-Coherent Case Presentation Rubric

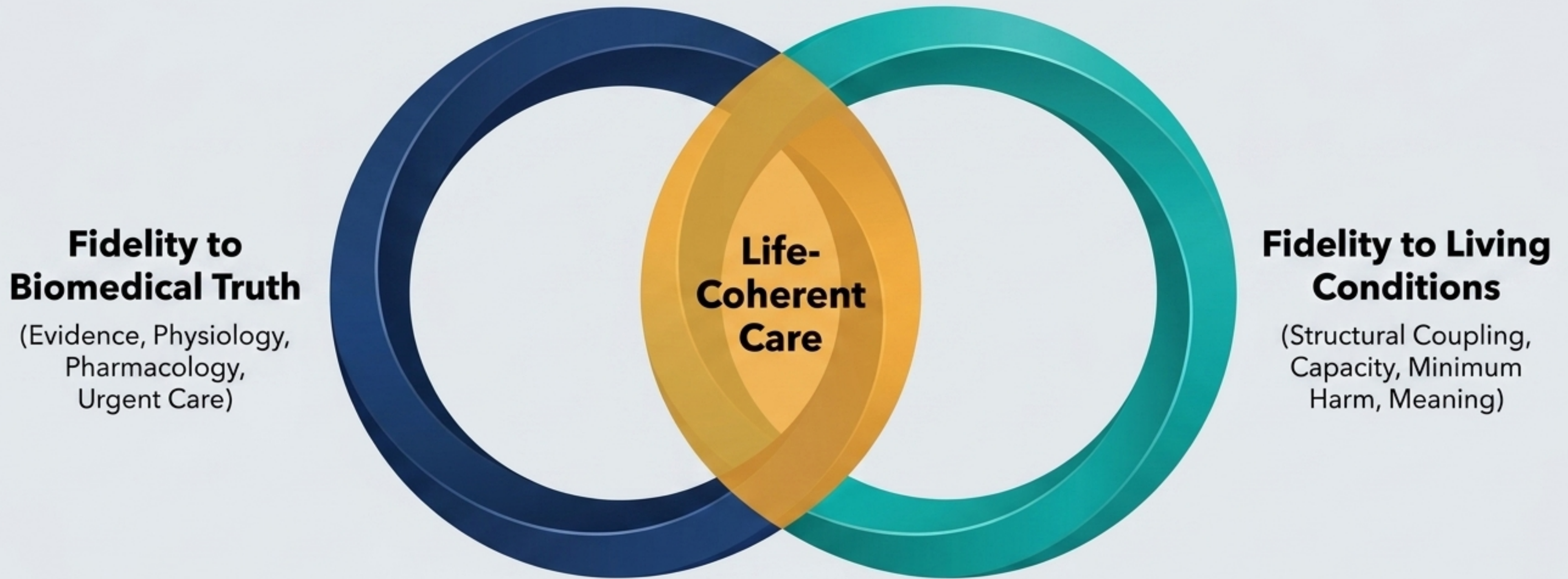
Domain	Guiding Question
Danger Recognition	What can kill or permanently harm this patient now?
Capacity Analysis	What life-capacity can the patient no longer sustain?
Organism-Medium Coupling	What conditions are maintaining this illness?
Wise Perturbation	What will restore viability with the least harm?
Repair Trajectory	How will we know the person is truly improving?

Complements competency frameworks (like AAMC EPAs) by assessing reasoning, proportionality, and the ability to link treatment to repair.

# Scaling the Loop: Medicine and the Civil Commons



The physician's work is downstream of life-support systems. When the civil commons is damaged, bodies absorb the consequences. Chronic disease becomes the biological ledger of social incoherence.



***What must be restored so that this person can live again?***

REORGANIZING INTERNAL MEDICINE AROUND THE LIVING LOGIC OF THE HUMAN BEING.