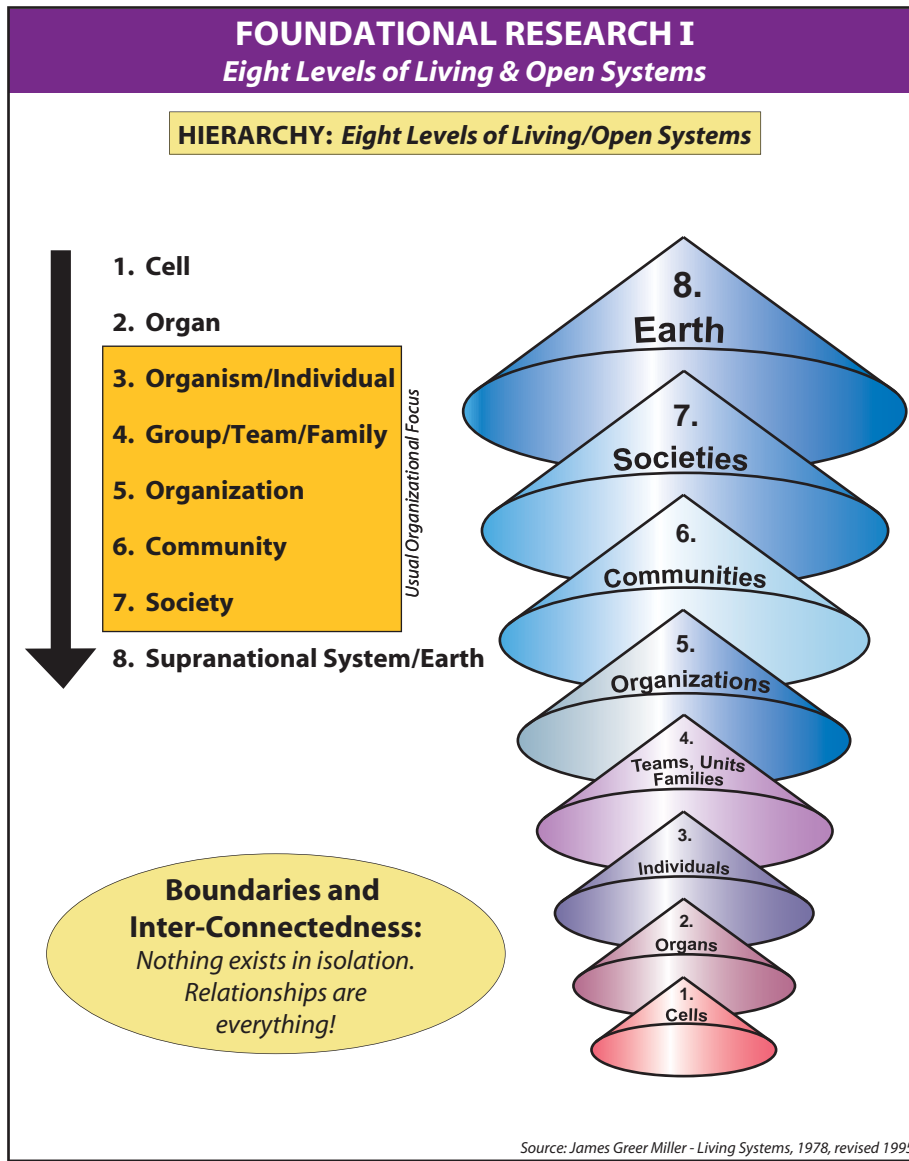


# SYSTEMS THINKING FOUNDATIONAL RESEARCH

## The Natural Way the World Works

System: A System is a set of components that work together for the overall objectives of the whole (output).



• In Analytic Thinking, the parts are Primary and the whole is Secondary.

### FOUNDATIONAL RESEARCH II

#### 12 Natural Laws of Living Systems on Earth

Best Practices	vs.	Traditional Human Dynamics
<b>I. THE WHOLE SYSTEM: "The whole is greater than the sum of its parts."</b>		
<b>A B C</b> 1. <b>Holism</b> -Overall broader perspectives, Ends/Purpose-Focused, Synergy		1. <b>Parts Focused</b> -Suboptimal Results, Narrower Views, Means
<b>E</b> 2. <b>Open Systems</b> -To the Environment, Regular Scanning, "Outside-In", Implications Clear		2. <b>Closed Systems</b> -Low Environmental Scanning or Concern, Parts-Focused
<b>D</b> 3. <b>Boundaries</b> -Clarity of System, Integrated, Fit, Collaborative, Complementary		3. <b>Fragmented/Inflexible</b> -Turf Battles, Voids, Overlaps, Duplication
<b>C A</b> 4. <b>Input/Output</b> -How Natural Systems Operate, "Backwards Thinking"		4. <b>Sequential</b> -Linear, Mechanistic, Piecemeal/Analytic, Forecasts
<b>B</b> 5. <b>Feedback</b> -On Effectiveness, Results, "Feedback is a gift", Encourage it.		5. <b>Low Feedback</b> -Financial Only Fear, Defensiveness, Lack of Measures
<b>A</b> 6. <b>Multiple Outcomes</b> -Goal seeking at all levels (WIIFM) - "What's In It For Me?"		6. <b>Conflict</b> -Artificial "Either/Or" Thinking "Yes, but", One Result Only
<b>II. THE INNER WORKINGS: Synergy, Relationships and Interdependence</b>		
7. <b>Equifinality</b> -Flexible and Adaptive, Empower the Means, More than One Way to Do It		7. <b>Direct Cause-Effect</b> -One Best Way, Quick Fix Fails, Activity-Focused
8. <b>Entropy</b> -Follow-up/Inputs of Energy, Renewal, "Booster Shots" needed		8. <b>Natural Decline</b> -Obsolescence, Rigidity and Death
9. <b>Hierarchies</b> -Flatter Organization/Self Organizing, Productive Order Emerges		9. <b>Bureaucracy</b> -Command and Control, Policy Paramount, Centralize Decisions
10. <b>Relationships</b> -Related Parts: Patterns, Webs, Interdependence and Leverage, Fit		10. <b>Separate Parts</b> -Components, Silos, Individualism, Parts are Primary
11. <b>Dynamic Equilibrium</b> -Maintain Stability and Balance/Culture, Self-Regulating, (disequilibrium on the edge)		11. <b>Resistance to Change</b> -Myopic View Ruts, Habits, Root Causes delayed in Time and Space
12. <b>Internal Elaboration</b> -Details and Sophistication, Clarity and Simplicity		12. <b>Complexity</b> -and Confusion/Chaos

Source: Society for General Systems Research: American Management Journal, December 1972

• In Systems Thinking, the whole is primary, and the parts are Secondary.

1/2011

# SYSTEMS THINKING FOUNDATIONAL RESEARCH

## *The Natural Way the World Works*

Systems Thinking...is finding patterns and relationships, and learning to reinforce or change these patterns to fulfill your vision and mission.

