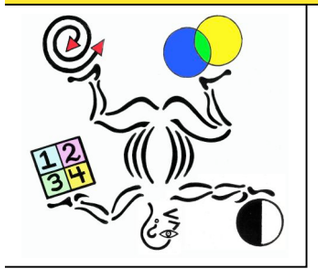


What there is to Constellate:

Nature's Dynamic Complexity in the Interactivity of Mind and Matter

Conceiving the chaotically deterministic, self-organizing, nonlinear dynamics that pervade life

- *Natural systems involve interactivity and nonlinearity that cannot be reduced to predictable mechanical processes*
- *The order that develops in the world actually arises from chaotic conditions of diversity, conflict, and inconsistency*
- *Failure to comprehend this dynamic nature of Nature blinds us to the complexity of what happens and how*
- *This knowledge is essential to realistic understanding of how minds, societies, economies, and environments work*

→ *Insight about dynamic complexity begins with distinguishing between orderly and disorderly sources of order so that we can understand how both are essential to the overall 'ordering of life'*

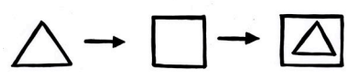
Reality is More than One Way: The Two Orders of Order

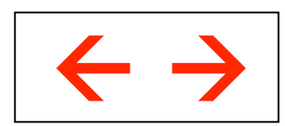
The basic distinction made here about complexity is between sequential and concurrently interactive dynamics. Simple events occur as an orderly series of sequential actions. But larger scale events involve many such sequences occurring simultaneously—and concurrently influencing each other. Sequentially mechanical causation is only one of two distinct modes of causation that order our selves and the world.

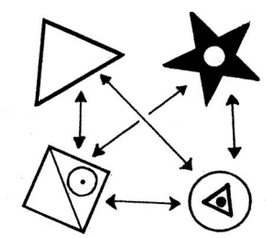
Linear Activity: Mechanism
Sequence: 'one thing at a time'
Ordinary Order: Predictable

Nonlinear Inter-activity: Complex System
Concurrence: 'everything at once'
Extra-Ordinary Order: Unpredictable

1, 2, 3.







Hierarchy
> One thing comes before & determines the next <

Inter-archy
> Many things affect each other concurrently <

The Order of Nature's Fantastic Interactivity is Disorderly—or, 'Dynamically Complex'

The dynamic complexity of natural systems derives from the interplay of diverse elements and various linear sequences of events—some of which modify each other simultaneously through concurrent interaction. Thus the ordering of societies and ecosystems is partly spontaneous, arising from somewhat chaotic combinations of contrasting elements as an unexpectedly "emergent property". The results of these disjunctive processes can be unpredictably disproportionate, or "nonlinear," as if '2 + 2 = 5.' This chaotically creative, synergistic self-organization is essential to the emergence of genuinely novel forms in both biological evolution and everyday thought. It causes dynamically complex systems to manifest properties that cannot be deduced from their separate components—making them 'wholes that are greater than the sums of their parts.' Comprehending this confounding quality of causation is essential to an adequate understanding of how both self and world 'come to be.' From minds to ecosystems, Nature's ordering is not fixed but continually arising from concurrent interactivity and nonlinear dynamics. There are then two types of ordering: sequentially consistent and disjunctively emergent. One can be reductively predicted and the other cannot. Knowing realistically means being able to 'tell the difference' between the two. The conjunction of these predictable and unpredictable orderings is referred to here as 'dynamic complexity.'

Nature's Dynamic Complexity can be characterized as involving:

> Processes that generate orderly continuity out of chaotically disjunctive conditions
> Conjunctions of factors that produce unpredictable complexity or novelty
> Interactions among elements that generate feedback loops which 'self-organize' their overall activity
> Adaptive creativity in systems arising from their own internal discontinuity, diversity, or conflict
> Interactivity that 'constellates' as a dynamically variable yet recognizably consistent pattern (or 'identity')
> Contexts of internally generated continuity that are also sensitive to the influences of external conditions
> 'Wholeness' emerging from relational activity that is 'greater than the sum of its parts'

Approaching the Actual but Obscure Interactivity of Reality

Re-Conceiving How Things Actually Happen: from mechanical action to concurrent interaction

Orientating one's awareness toward the actual dynamics of self and world described by complexity science requires us to re-conceive 'how things happen.' This issue is important because it is so poorly understood. How complex 'things' like organisms and organizations work is not the way we tend to assume. If we are to have a genuinely realistic perspective upon self and world we must somehow imagine both mechanical processes that can be controlled and concurrently interactive ones that generate self-regulating sets of relationships that cannot be controlled. We must think in terms of not only linear but also nonlinear dynamics and come to regard 'entities' as sets of relational interactions. The world is fantastically more complex than we ordinarily realize. Such a world has some extremely significant, but not readily evident qualities.

Confronting the 'rules' of a world composed by the interplay of linear and nonlinear dynamics

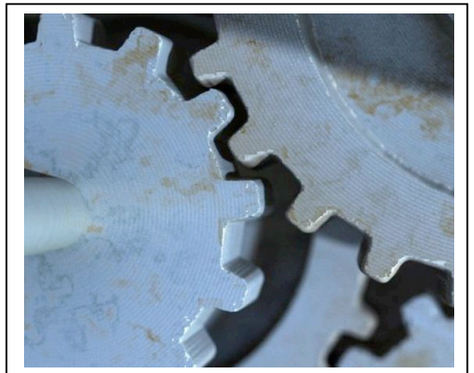
* Humans and other so-called "complex systems" are much more than the sums of their parts
* In many contexts order continually emerges from disorder**—>** continuity involves discontinuity
* Events, concepts, organizations, and persons are variable, interactive relational processes, not static structures
* Nonlinear dynamics manifest unpredictable factors that can radically alter forms, contexts, and processes
* Complex systems such as human relationships autonomously self-organize into unintended patterns of 'behavior'
* Subsequently, organizations can effectively 'act' like 'intentional creatures' regardless of how they are 'managed'
* Disruption and conflict are often integral not only to sustainable equilibrium but also the changes of adaptive creativity
* Diversity and discontinuity in both structure and behavior are essential to life's optimal vitality
* We humans are the embodiment of chaotically self-organizing dynamic complexity—both as mind and body
* In the real world, causes, identities, meanings, and truths are not singular, self-consistent, or absolute—
  it's way more complicated than that!

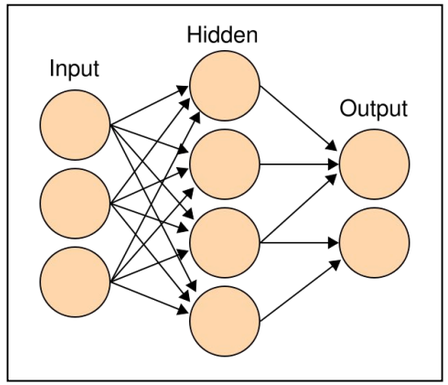
'Seeing' the Ordinarily Invisible Dynamics of Natural Complexity

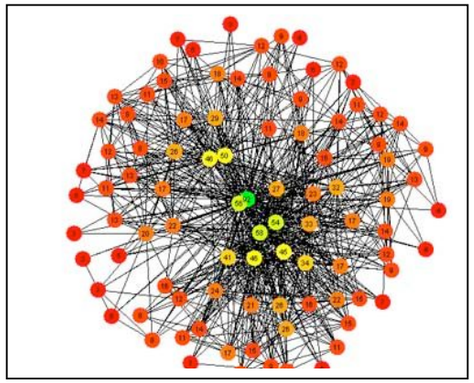
The Interactivity of Parts that Creates Dynamically Complex Systems

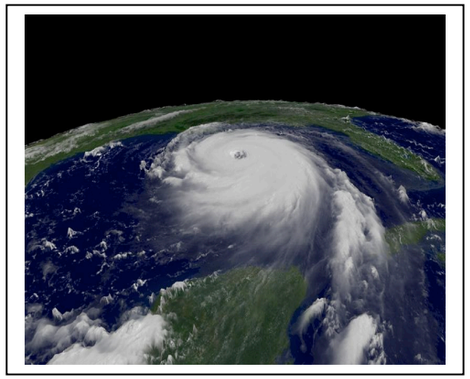
When one part of a system 'moves' so does another part. But in dynamically complex systems connections between parts are often multiple, variable, and mutually modifying. How the activity of one part will affect others can be unpredictable. Even simple processes can generate fantastically complex networks that spontaneously self-organize. In this way complexity emerges from simplicity and unexpected creativity is activated.

Parts and linear sequences combine to produce unexpected and unpredictable interactive complexity









The Synergistic Consciousness of Lateral Interconnectivity

In complex systems, individual elements (neurons, fish, humans) co-operate, interacting concurrently across lateral matrixes, synergistically producing order that has no plan or 'center.' Both individual and collective intelligence emerge from such lateral interconnectivity. Localized 'rules' for such engagement (whether between neurons or vehicles) somehow translate into the 'global order' of a much larger, unpredictably distinctive, continually interactive system.

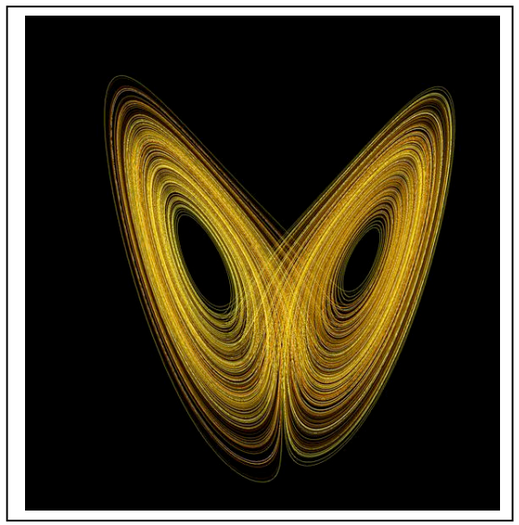
The lateral interconnectivity that turns neurons into 'me,' fish into 'a shoal,' and drivers into 'traffic'

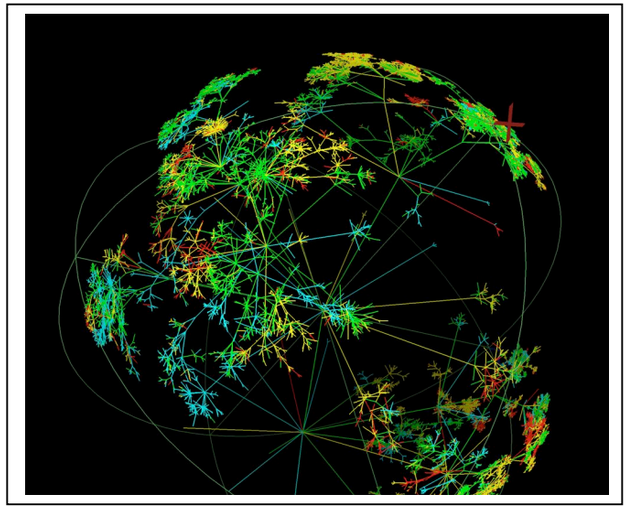
The whole of a complex system is not only greater than the sum of its parts but its order necessarily involves disorder. Much of what we see around us is not composed as hierarchical structure but as 'inter-archy' or interactive structure that depends upon diversity and discontinuity to sustain its vitality. Streets and traffic lights provide a 'structure,' but it is the different drivers in different vehicles with different temperaments and destinations that actually create the continually emerging patterns of overall traffic. Similarly, interaction between the differentiated cognitive functions of the brain make thought possible—partly by way of chaotic dynamics that unpredictably generate consciousness.

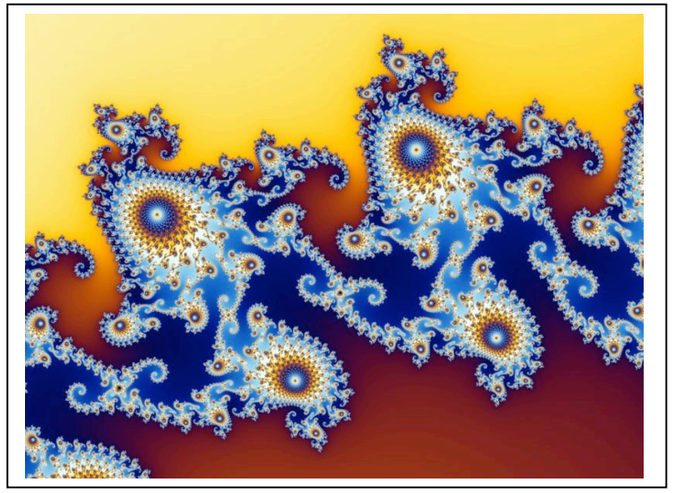
Things that Exist Variably—as Dynamic Relationships

The order that emerges in dynamically complex systems has pattern but also inconsistency, forming matrices that maintain no single center or definite predictability yet somehow generate *self-similar continuity over time.* The vitality of 'living things' emerges from these self-diversifying patterns, rather than from invariably predictable repetition. This view of order presents us with a profound yet scientifically valid mystery: order arises from disorder and identity is not constant, thus not 'singular.' The 'self' each of us is is 'divided' by internal discontinuities and variable from moment to moment. We are as set of relationships between elements that is continually changing yet still 'recognizable.'

Variable self-similarity in complex systems, global networks, and the recursive iteration of fractals







Confronting a Reality We are not Prepared to Comprehend

The concurrent 'lateral interconnectivity' of interactivity, with its unpredictable synergy, cannot be affectively modeled by mechanistic concepts and illustrations. However, reduction to mechanism is the dominant paradigm for knowing reality in modern society—it is how we are taught to think, both in and out of formal education. Thus our ordinary assumptions about 'how things happen' are reflexively mechanistic and, subsequently, dangerously simplistic. This habitual orientation leads to 'reductive delusion' because dynamic complexity becomes particularly difficult to notice and appreciate. The actual inter-activities of events, from our relationships with each other to the behaviors of economies and climate change, are essentially un-thinkable to reductive mentality. However, there is now a science of interactive reality whose concepts and

illustrations provide the basis for an alternate mode of modeling 'how things happen.' That scientific 'way of seeing' phenomena 'knows' events as dynamic clusters of sequential ***and*** concurrent actions, spread out in 3 dimensional space, that vary over time. This can be termed a constellating mode of 'figuring' events. As such it presents a profound alternative to the 'sequential machine' as a model of reality. 'Viewing' phenomena in this manner, as 'interactive reality,' is approached in the work on this website as 'dynamic constellation.' This constellating perspective is essential to 'telling how it happens'—realistically.

Think More Realistically—Constellate Your Consciousness

For further detail on *Dynamic Constellation* see the more info page

Browse the site or contact me now for information on how these concepts can benefit you

Tracking the actual activity of complex systems means thinking every which way