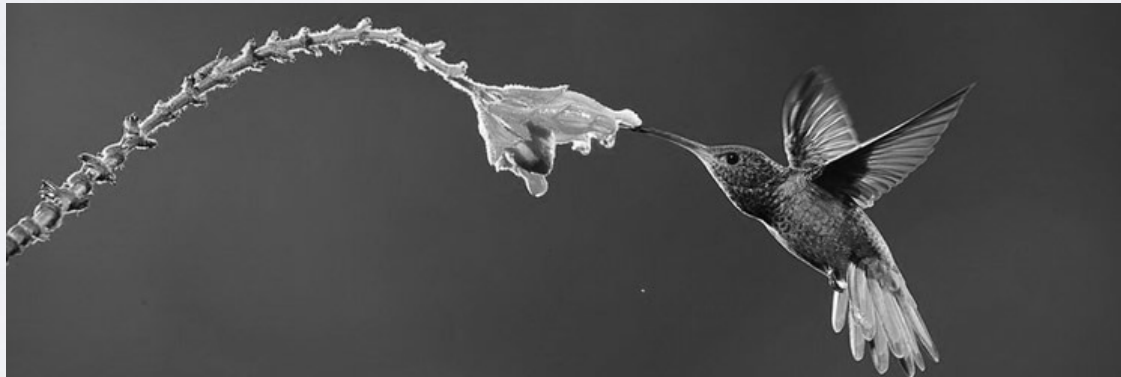




Exchange

Specialization and Trade



'Exchange' signifies the productive capacity of systems.



PatternDynamics™

www.patterndynamics.net

'Exchange' signifies the productive capacity of systems.

All natural systems have productive processes driven by specialized elements exchanging energy and materials with each other. Flowers distribute nectar as a natural energy product in an exchange with insects and animals that do the work of distributing the plant's pollen. This is a more efficient and therefore more productive outcome than if the flower had to organize its own pollination and the insects and animals had to photosynthesize their own sugars from sunlight energy.

- What role do exchanges play within a system?
- Think about what an organisation would be like if it did not have a unique role within the economy that allowed it to create products or services competitively so as to become a desirable trading partner.
- What would a business be like that tried to be an extreme generalist and work in a multitude of unrelated industries?
- Alternatively, what would it be like to be so highly specialized that your role was only infrequently required within an organisation?
- How do you choose the appropriate level of specialization? How does trade amongst specialists make everybody better off?
- How could you balance an existing Exchange or integrate a new one into a system in your life to improve how it is organised?
- How do exchanges serve to coordinate systems?



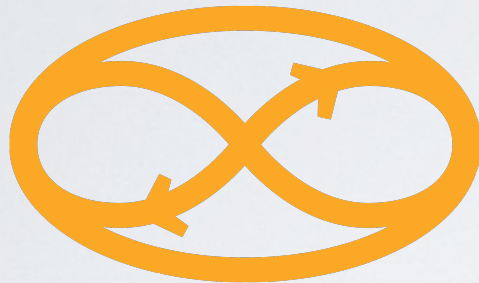


Exchange

Elements

- Description
- Pattern
- Definition
- Principle
- Aspect





Exchange

Description

Significance: The Exchange Pattern represents the material, energetic and informational trades made between specialized elements of a system.

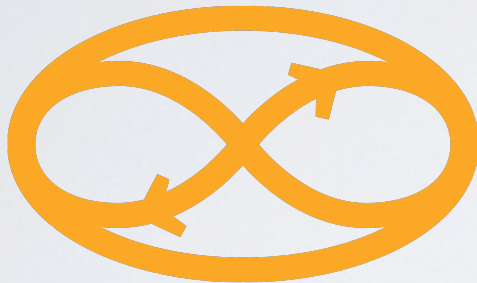
Role: The role of Exchange is to provide the production and efficiency gains of systems.

Effect: Exchanges between elements with unique capabilities demonstrates the productivity and efficiency gains of systems that allows them to outcompete any group of non-specialized, non-trading elements.

Balance: Exchanges must be balanced so that, on the one hand, elements within a system specialize enough that through trade the system gains a competitive advantage; but, on the other hand, elements retain the ability to cover off more than one function so as to ensure resilience.



Pattern



Exchange

The opposing arrows represent the trade or exchange of resources between elements of a system. The two inner shapes represent 'parts' that are encompassed by the larger oval into a 'whole' system. This basic part/whole configuration indicates the role of Exchange as an Aspect of Source.



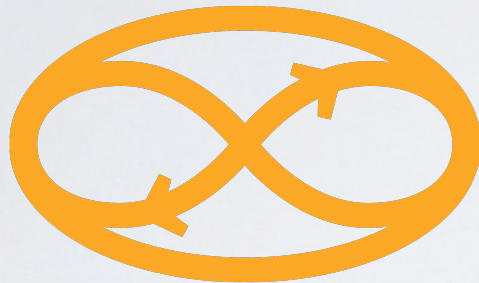
Definition

The productive capacity of systems.



Exchange





Exchange

Principle

The principle of productivity:

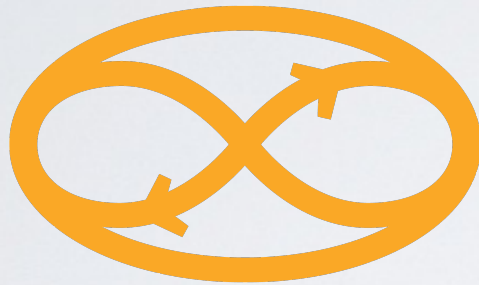
The enduring health and evolution of any system depends on the appropriate balance and integration of:

- the degree of specialization by elements of a system with the requirement for the more generalized function supporting resilience, *for a given context*.



Aspect

Exchange is one of 7 primary Aspects of Source, the most foundational Pattern in the PatternDynamics™ framework.



Exchange



Dynamics



Rhythm



Polarity



Source



Creativity



Exchange



Structure





Exchange

Examples

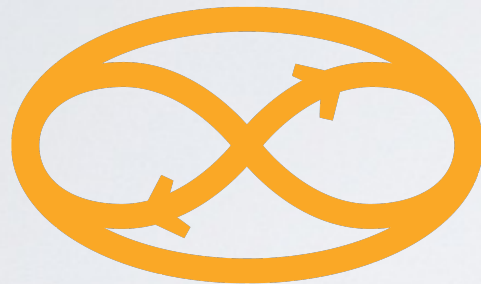
Nature: Organisms, Ecosystems, and Biosphere

- Organism
- Ecosystem

Culture: Individuals, Organizations, and Socio/Economic Systems

- Organizations
- Socio-Economic Systems





Exchange

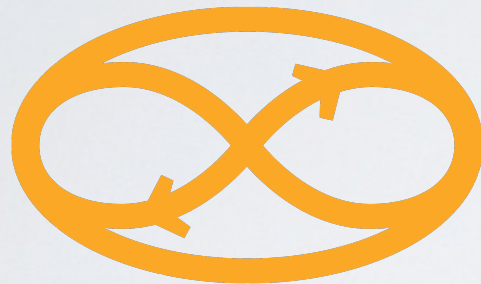
Examples

Nature: Organisms, Ecosystems, and Biosphere

Organism: The major organs, which act as sub systems within animals' bodies, specialize in unique capacities: hormone regulation by the endocrine system, filtration by the kidneys, pumping blood by the heart, and gaseous interchange by the lungs—to name but a few. Organs have evolved specializations that allow them to enter into relational exchanges as part of a greater system, but many are not so highly specialized that they cannot cover off the function of other organs. For instance the kidneys and heart have secondary endocrine functions supporting hormone regulation in the body.

Inquiry: What purpose does it serve to have something like endocrine function covered by more than one element in the body?





Exchange

Examples

Nature: Organisms, Ecosystems, and Biosphere

Ecosystem: Specialized fungi translocate mineral elements through the soil and deliver them to the roots of plants where they are exchanged for sugars produced in the plant's leaves. If a fungus specializes to the degree where it can exchange with only one species of plant it may become very efficient, but if its plant partner disappears so will the fungus. If the fungus is less specialized and has a generalized capacity to trade with many species it may not be maximally efficient, but it will be more resilient to changes in plant distributions.

Inquiry: What would happen to a pollinating insect that specialized in pollinating only one particular kind of plant if that plant became endangered?





Exchange

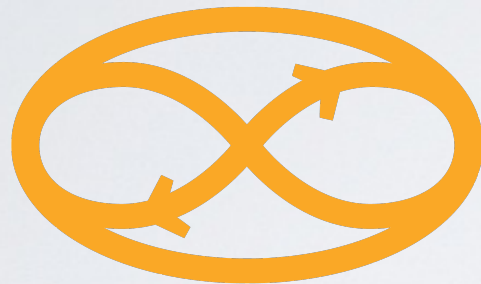
Examples

Culture: Individuals, Organizations, and Socio/Economic Systems

Organizations: Specialist employees exchange skills like accounting, management, trade skills, and IT expertise in order to create productive business systems. If the employees are so highly specialized that they do not understand enough about other roles within the business to relate to them, or in a pinch fill in for them, then specialization may have gone too far. If employees and managers are too general in their abilities, tasks may be covered off by a number of people, but they will not be done with maximum levels of expertise or productivity.

Inquiry: In different kinds of organization is it appropriate to have differing levels of the degree to which people specialize in their skills? If so, why?





Exchange

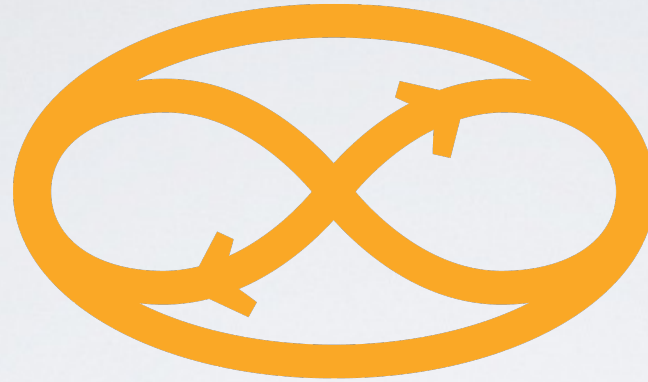
Examples

Culture: Individuals, Organizations, and Socio/Economic Systems

Socio-Economic Systems: Economies are composed of individuals, businesses and whole industries that develop unique capacities and then trade to form a multi-scaled system of exchange. Highly specialized businesses and institutions are needed as economies grow more complex, but high specialization makes business vulnerable to market changes that marginalize the demand for their unique goods or services. All businesses in an economic system must find the balance between high specialization that brings productivity gains and more general capacities that allow them to adapt to changing circumstances.

Inquiry: In a period of volatile and uncertain market conditions should a business increase its specialization to drive productivity or increase its adaptive ability by investing in the ability to produce a more flexible range of products?





Exchange

Life: Martial Arts Training

- How is it now?
- How could you adjust it?

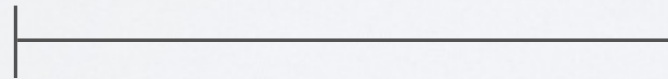
Work: As Systems Thinking Educator

- How is it now?
- How could you adjust it?

World: Resource Extraction

- How is it now?
- How could we adjust it?

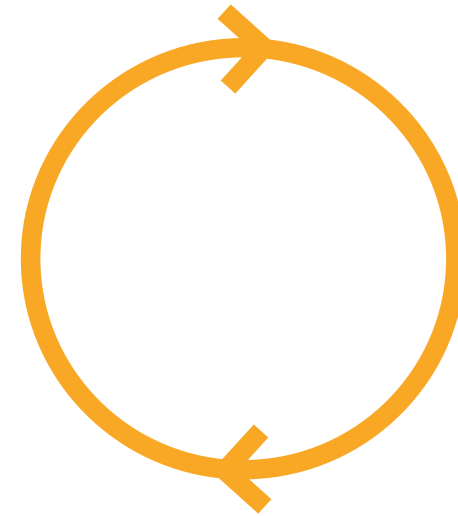
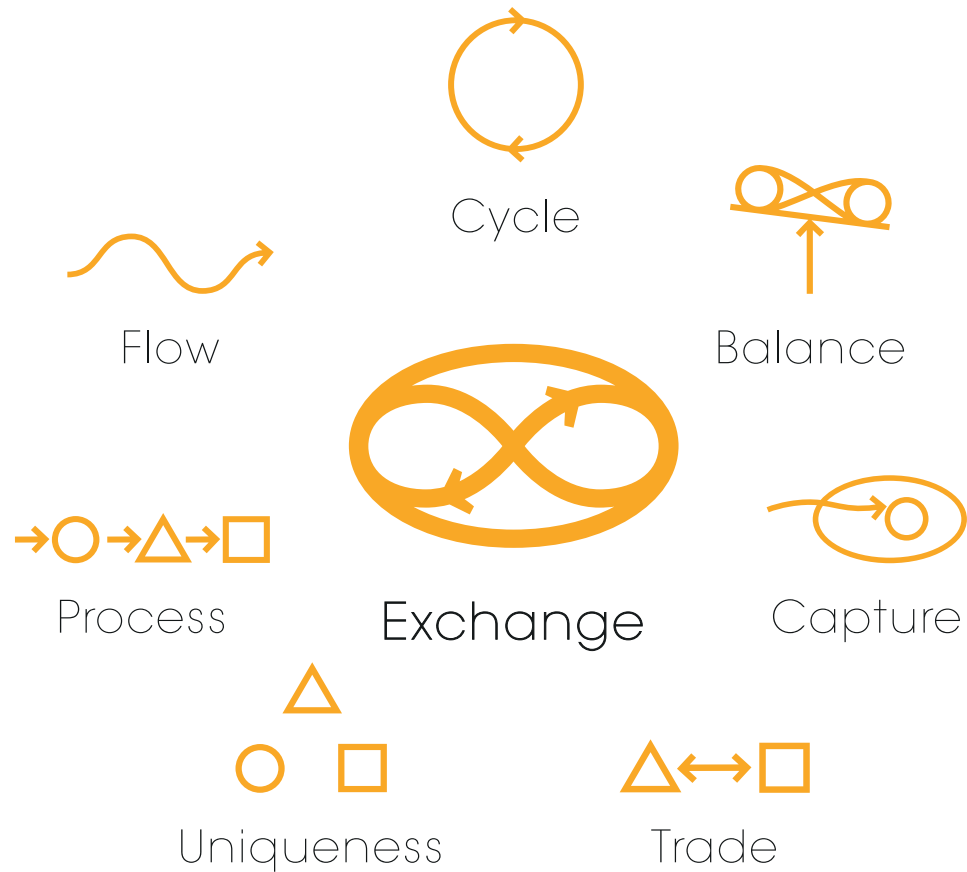
Specialized



Generalized



Exchange



Cycle

Exchange Phases

Description:

The Cycle Pattern represents the circuit of phases involved in the interchange processes that characterize the operation of a system. It is one aspect of the more foundational Pattern, Exchange. Cycle illustrates the rhythmic, repeated sequence of actions that form an iterative circuit in trade flows. The duration and activity level of the phases needs to be balanced to ensure free flowing exchanges. The role of Cycle is to provide a sequence of repeated phases in any process.

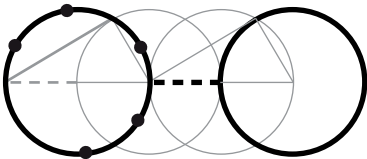
Principle:

The principle of cyclic exchanges: the enduring health of any system depends on the balance and integration of the phases in the iterative circuit of any exchange process, for a given context.

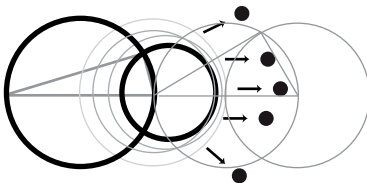
EXCHANGE

Transfer of patterns

NETWORK
between
organizations

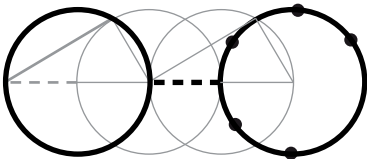


CHANGE
in the c-ratio of a
single organization

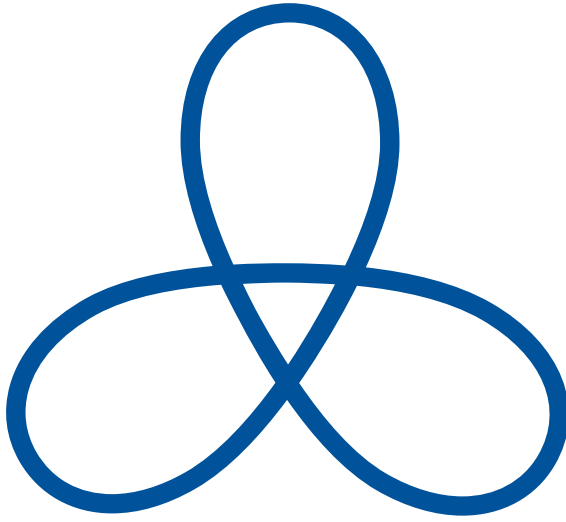


EJECTS
arrangements of
particles of matter

TRANSFER
of material to a
connected
organization



As a symbol interacts with another symbol, its dyad fluctuates, and so does its c-ratio. In turn, the fluctuations in complexity force patterns to move between the symbols. Thermodynamics explains the displacement of particles between bodies on the small scale. However, large symbols in mindspace will exchange large masses of patterns that look like consumer products, documents, people, and other massive arrangements of particles. The goal of each symbol is to capture patterns to fuel its lifespan vis-a-vis any competitors. Note that organizations found to be stuck within any particular phase of growth or change, will appear uneconomical, frustrated, and will eventually waste its time.



Pattern

Dynamic Order

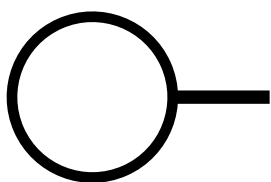
Description:

The Pattern Pattern signifies repeated types of order. It is a Second Order aspect of the central and most foundational Pattern in the Patterndynamics™ system, Source. Pattern illustrates recurrent design arrangements that order parts into particular styles of dynamically functioning forms. Restrictive patterns of recurrent dynamically unfolding order need to be balanced with unordered states with high potential for new arrangements. The role of Pattern is to provide successful templates of systemic design.

Principle:

The principle of potential and restrictiveness of form: the enduring health and evolution of any system requires the appropriate balance and integration of restrictive highly patterned forms and unrestricted states of low order, but high potential, for a given context.

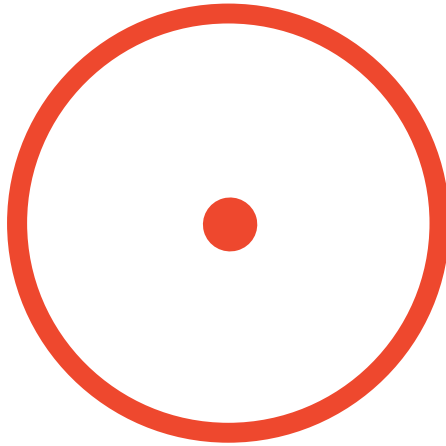
PATTERNS



CIRCLE
container



LINE
pathway



Concentration / Diffusion

Primordial Duality

Description:

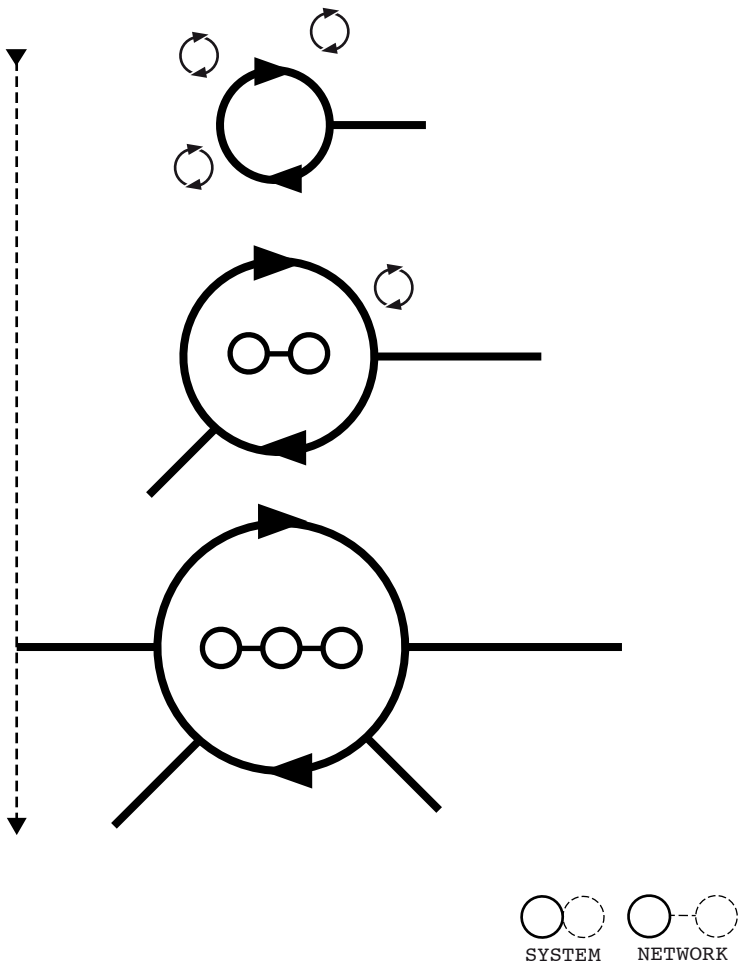
The Concentration / Diffusion Pattern signifies a foundational duality within systems. It is one aspect of the First Order Pattern, Polarity. Concentration / Diffusion demonstrates the importance of concentrated, interconnected centers of activity that are supported by and in turn support surrounding areas of less concentrated interconnectedness, but more abundant, resources. The dedication of resources to the concentrated center must be balanced with the capacity of the outlying areas to supply resources sustainably. The role of Concentration / Diffusion is to leverage the advantages of intensive centers of production, creativity, and exchange.

Principle:

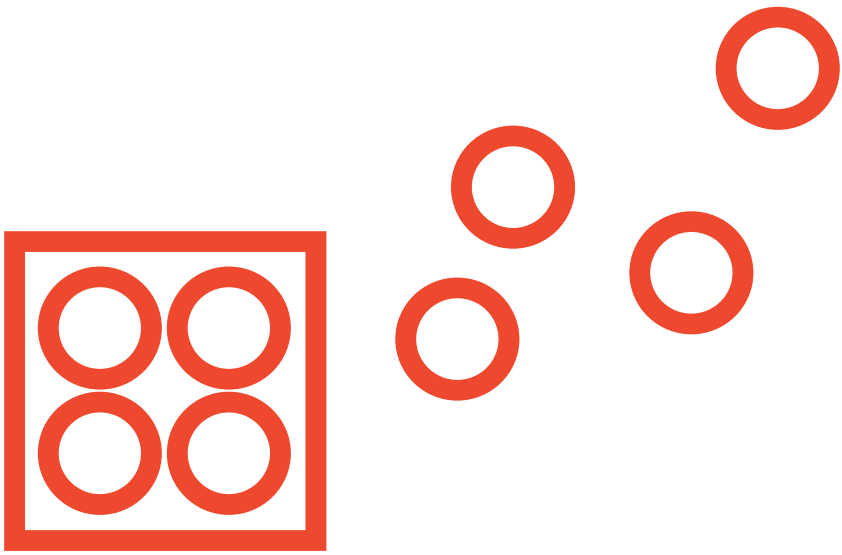
The principle of complex interconnections: the enduring health of any system depends on the appropriate balance and integration of the flow of resources to concentrated centers with the necessity for the advantages generated in those centers to be distributed to nurture and support the activities of the supplying hinterlands.

CONCENTRATION

Focus on size



Concentration and interaction go hand in hand. As an organization concentrates, additional pathways form between nearby systems, thereby increasing complexity and the potential for interaction. As a mind assembles its symbols into increasingly large groups, the resulting symbols will have a greater number of pathways leading to other minds and symbols.



Order / Chaos

Creative Polarity

Description:

The Order / Chaos Pattern represents the oppositional dynamics at work in the creative process. It is one aspect of the more foundational First Order Pattern, Polarity. Order / Chaos demonstrates the relationship and interplay between states of orderly functionality and states of breakdown and irregularity. Orderly states must be balanced against periods of breakdown that allow the rearrangement of previously fixed elements into new, more appropriate forms. The role of Order / Chaos is to facilitate adaptation and evolution.

Principle:

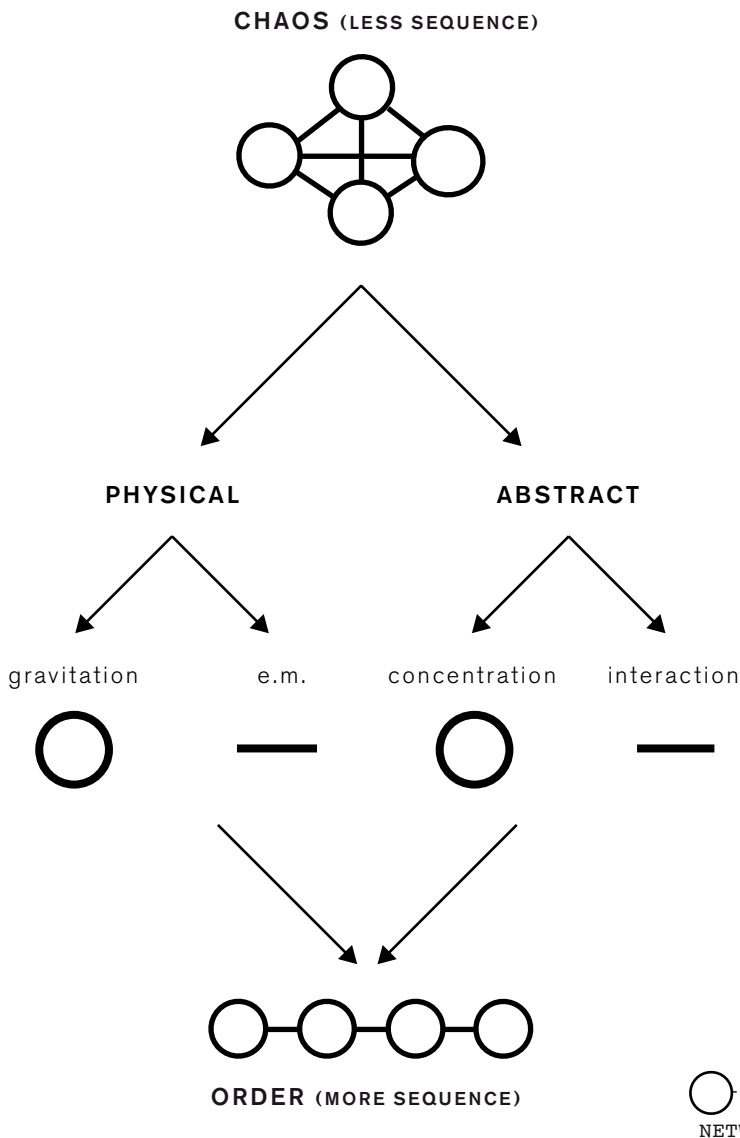
The principle of creative breakdown: the enduring health of any system depends on the appropriate balance and integration of periods of structured function with periods of breakdown and reorganisation, for a given context.

ORDER

Driven by the principle of attraction



TIME



All living beings are conduits for a force of nature called attraction. Attraction is an assembly process forcing an order between circles and lines within mind-space, and it combats against the perceived flow of time, entropy and disorder.

In thought theory, energy is contained by the circles and lines of mindspace. **Chaos** is the natural state of energy, meaning that without a process of **order** the circles and lines become randomly dispersed. Thought theory's principle of Attraction explains how dis-ordered patterns are re-arranged naturally in mindspace. Attraction's relational pulling force can be defined in a physical and abstract manner. In the physical space, attraction manifests as **gravity** and **electromagnetism** between objects, but in the abstract space, it manifests as **concentration** and **interaction** between symbols. Notice in the next two paragraphs, how I simply compare the notions of our physical nature with those of the abstract space:

Let us start with the *physical space*. Gravity is the force of attraction exerted by the size of an object. It is a force that pulls smaller organizations into larger organizations, so it mainly works between organizations of *different scales*. For example, gravity is exerted between you and the Earth and it feels like an inescapable pulling force. Electromagnetism, on the other hand, is emitted as a line and it works between organizations of similar scale. For example, electromagnetism keeps a pen between your fingers. Your fingers, the part of your body that interacts with the pen, is on a similar scale than the pen. It's important to realize that electromagnetism feels like *manipulating* matter while gravitation feels like *absorption*.

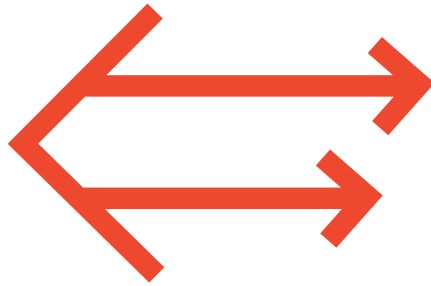
Let us move onto the *abstract space*. Concentration is the force of attraction that is bound to the circle. It is a force that pulls smaller organizations into larger organizations. So it works between organizations of different scales. For example, concentration is exerted between you and the Earth and it feels like 'attention' and admiration. Concentration creates awareness. The other abstract force of attraction is called interaction. It is bound to the line and it works between organizations of similar scale. For example, interaction works between a pen and your fingers. Although your mind may concentrate on a subject to write about, interaction causes your fingers to move a pen while thinking about the subject. Its important to realize that interaction feels complex, while concentration feels simple.

Overall, attraction brings people, objects, ideas and events together and it also crosses into decision-making and behavioral patterns. Any two things that

move closer together are under the influence of attraction, whether it's planets, people, or letters on a page. The physical and abstract notions of attraction must be considered when calculating the motion of matter, because people and objects are displaced by forces of attraction exerted on a physical and intellectual level, at the same time.

There is another mindspace principle called **Negation** that mitigates Attraction and gives systems the ability to separate. Negation emerges from the four dimensions of waves and opposes Attraction in many philosophical respects. It is a fundamental principle that comes about from the 'outside region of the circle', and results in **destructive complexity**.

Here's a common generalization about gravity: objects with the greatest size exert the greatest amounts of gravity. Consider that the largest mountain on the planet, containing the most atoms and mass, is Mt. Everest. I have proposed that gravity and concentration are the same force, and that concentration can be understood as attention or awareness. Therefore, Mt. Everest must generate the most amount of awareness since it's the biggest mountain. So what is awareness? Consider the thousands of people who discuss Mt. Everest every day. When people think about a relatively broad subject, that's awareness, and it's part of the concentrative process. But does Everest *attract the most visitors* because of its concentrative force? It turns out that Mt. Fuji is the world's most visited mountain, and it's much smaller than Everest. So what's really forcing people to move towards Mt. Fuji, since it must produce less awareness from its lesser size? The answer is that Mt. Fuji contains a higher complexity than Everest. Fuji has ski parks, restaurants, and other 'attractions', that spring from highly connected arrangements of patterns. It may not be the most physically massive mountain, but it is the most intelligently organized. Its intelligent arrangements provide it with a higher interactive component that provide it with 'abstract' forms of mass. Its abstract mass exerts additional units of attraction that pulls on the bodies of people. So a large physical mass will cause people to become attentive and aware, but a large abstract mass forces people to approach it physically. I believe that these concepts can be applied to everything we think about and engage with.



Competition / Cooperation

Dynamic Polarity

Description:

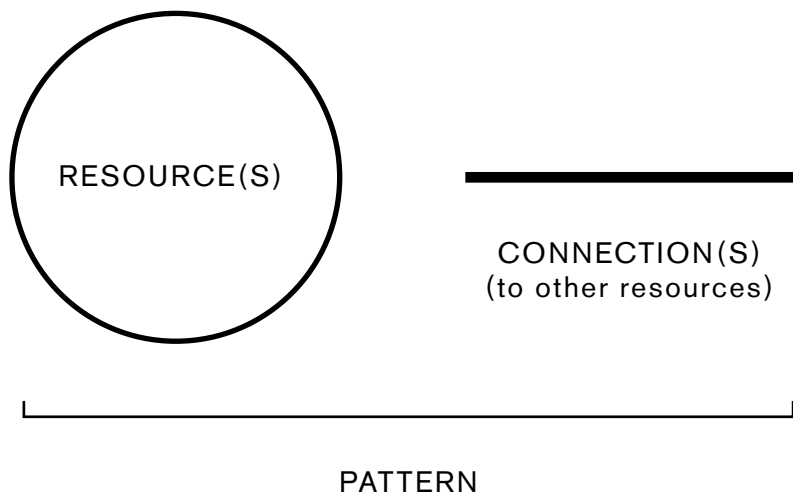
The Competition / Cooperation Pattern signifies a fundamental duality at the systems level. It is one aspect of the more foundational First Order Pattern, Polarity. Competition / Cooperation demonstrates the relationship and interplay between individual striving for supremacy and group collaboration for mutual assistance. The performance gains from competitive dynamics need to be balanced with the synergies of cooperative interactions. The role of Competition / Cooperation is to enhance functionality at the systems level.

Principle:

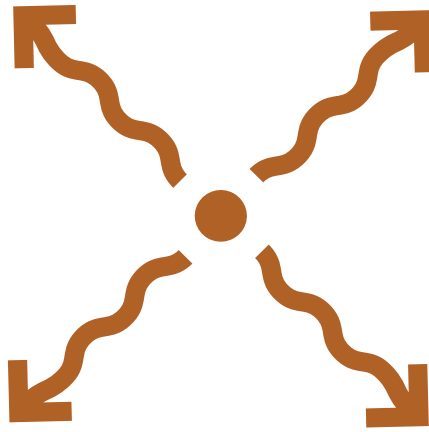
The principle of competitive cooperation: the enduring health of any system depends on the appropriate balance and integration competitive striving and cooperative synergies, for a given context.

COOPERATION

Building mindspace



In thought theory, the complete notion of a symbolic organization requires two structures: the circle and the line. The circle stores symbolic resources that have value, while the line transfers them to other organizations. In a physical sense, the line can be a pathway that exchanges something tangible. While in an abstract sense it can be a pathway that exchanges something intangible. For example, when two people are speaking to one another, they are connected by a line that exchanges physical and abstract forms of resources such as heat and information, respectively.



Field

Resonance Structure

Description:

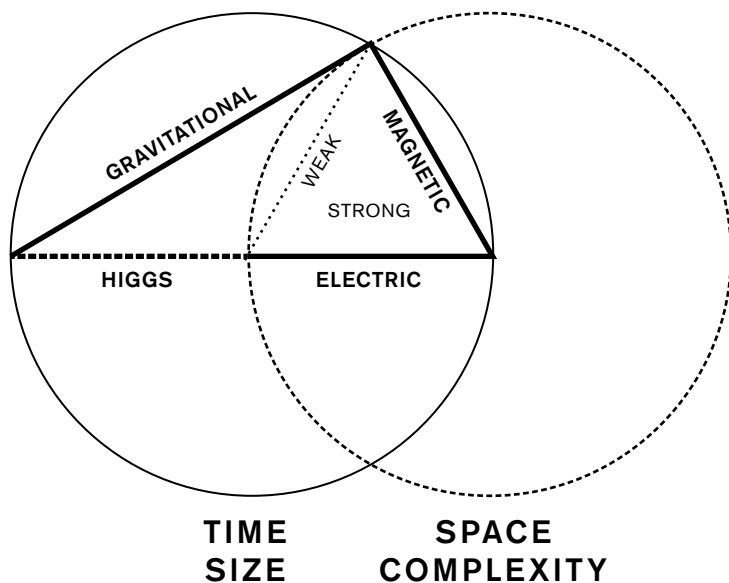
The Field Pattern represents resonant shaping forces, some of which may be difficult to explain given our current level of understanding. It is one aspect of the more foundational Pattern, Structure. Field illustrates subtle resonant influences that shape similarities in order between seemingly unrelated structural forms. Reliance on subtle influences needs to be balanced with the use of more concrete structural elements and forms. The role of Field is to provide the subtle resonant patterns that order parts into classes of recognisable wholes.

Principle:

The principle of subtle structures: the enduring health of any system depends on the balance and integration of the subtle patterning of structures with more concrete structural elements and forms, for a given context.

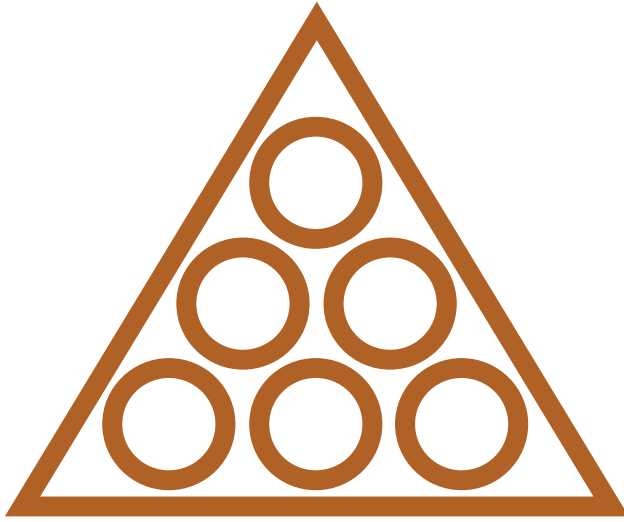
FORCE FIELDS

Frame of the fundamental mechanism



Time and space are different entities with different functions, yet they are united in a mechanism that manages patterns. The forces of nature are exerted by a framework (fm diagram) that binds the circle (time) and line (space), and each force field performs a specific task that helps build and maintain this pattern in mindspace. Every pattern goes on to reflect at least one atom.

*E.m. is split into short and long ranges because the line is the side view of a circle. Gravity isn't split between ranges, because the circle is **not** the top view of a line (did you get that?). This is the most basic difference I can find between quantum mechanics and general relativity. Also note that the vector of gravity does not cross into the Vesica Piscis.*



Hierarchy

Essential Structure

Description:

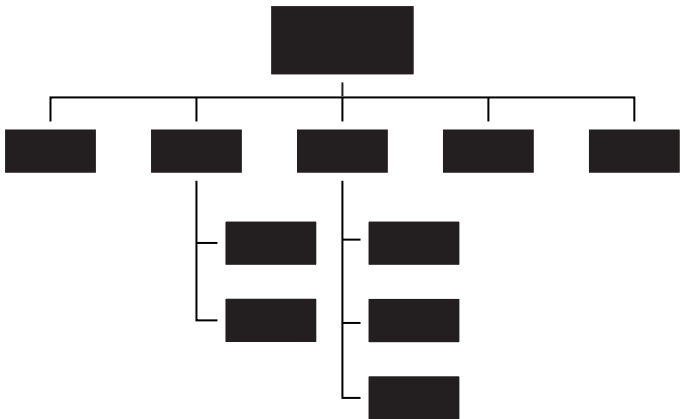
The Hierarchy Pattern signifies an essential property of the design of any system. It is one aspect of the more foundational Pattern, Structure. Hierarchy illustrates the ranking of levels of a system based on the number of elements in each level. The concentration of control functions with the few at the top of the triangle must be balanced with the diffusion of influence in the many at the bottom. The role of Hierarchy is to generate a gain based on supporting a concentration of control at the peak and the peak in turn disseminating the gains based on coordinated control to the supporting base.

Principle:

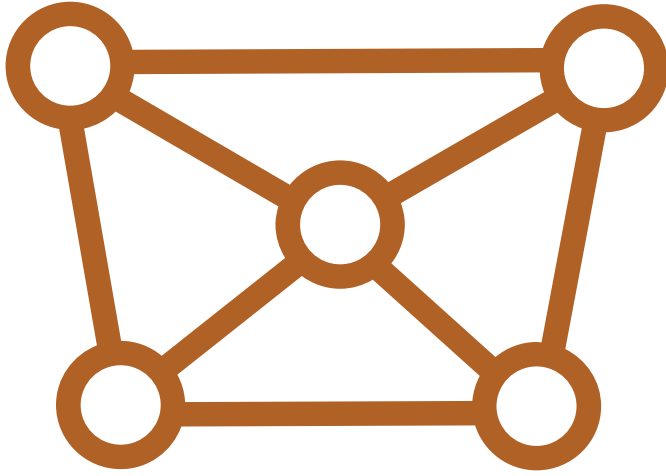
The principle of control as service: the enduring health of any system depends on the balance and integration of the concentrated control at the peak and the more numerous, but more diffuse, supporting influence at the base of any hierarchy.

HIERARCHIES

Organizational division



Organizations utilize their complex substructures of relationships to interact and move across mindspace. As they interact, they merge, build, and appear to destroy each other. I think it can be said that life is birthed when a mind develops self-will, and organizations that act upon the distinction between themselves and their environment demonstrate willfulness. How does the architecture of mindspace generate will, and does will even exist? Do the rules guiding the unconscious mind create will for each of us (as the unconscious mind displaces symbols according to some metaphysical laws)? Also, should will power be increasingly considered an environmental and societal issue, instead of a strictly personal one?



Network

Relational Design

Description:

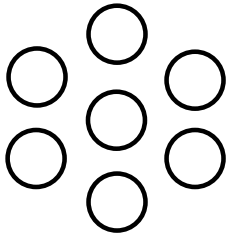
The Network Pattern signifies the inter-connective architecture of relationships between elements in a system. It is one aspect of the more foundational Pattern, Structure. Network demonstrates the node and pathway organisational pattern. The individuality and independence of nodes must be balanced with the strength of relationships between them. The role of Network is to provide organizational clarity through interconnected distinctions.

Principle:

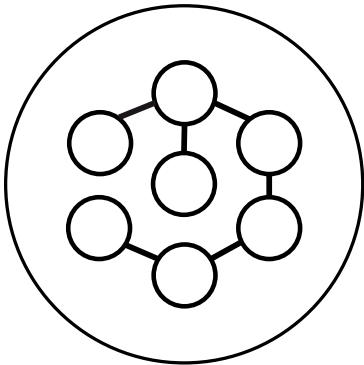
The principle of nodes and pathways: the enduring health of any system depends on the balance and integration of the strength of relationships with the concentrated integrity of nodes, for a given context.

NETWORKS

Relationships fuel symbols



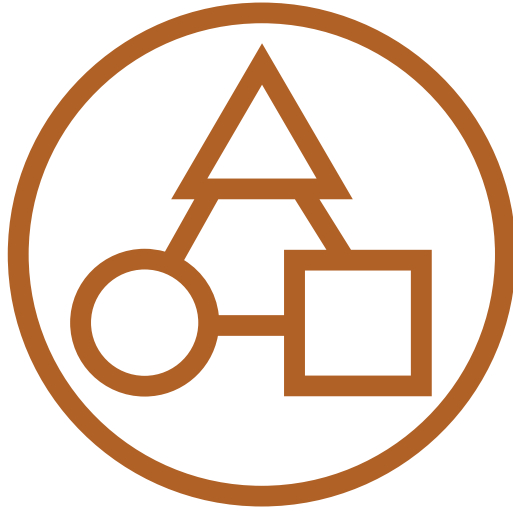
**DISCONNECTED
SYSTEMS**



**INTERCONNECTED
SYSTEMS**



Inner-organizations are bound into a whole organization that is greater than the sum of its parts. Disconnected organizations, that aren't sharing resources, cannot survive within an outer-organization and they will always eventually disappear from it. The relationships fuel progress while growing the lifespan of the outer-organization. So any organization, or society, that appears to be to be healthy and growing contains a well connected group of supporting organizations.



Complexity

Order Creation

Description:

The Complexity Pattern represents the number of elements and the number of connections between them in a system. It is one aspect of the more foundational Pattern, Structure. Complexity illustrates the structuring of relationships between unique elements of a system. The capacity for numerous unique elements with large numbers of connections needs to be balanced with simpler, more manageable, less complicated arrangements. The role of Complexity is to creatively configure high degrees of order within systems.

Principle:

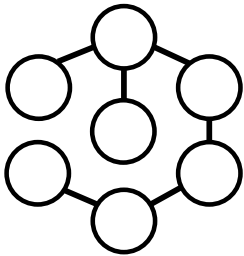
The principle of interrelationships: the enduring health of any system depends on the balance and integration of large numbers of unique elements in multiple relationships and lesser numbers of elements and relationships, for a given context.

COMPLEXITY

Measure of connectivity

ADD
SIZE TO
THE ORGANIZATION
=

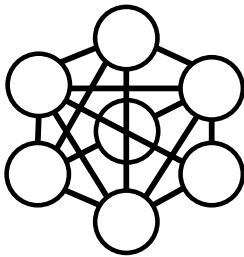
ADD CIRCLES



low interconnectivity
low complexity

ADD
COMPLEXITY
TO THE ORGANIZATION
=

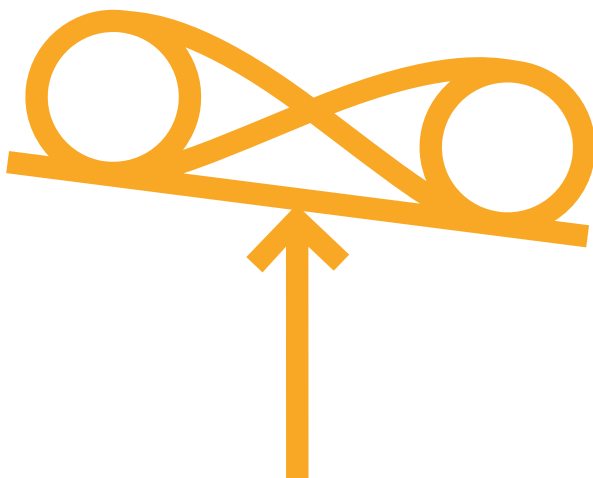
ADD LINES



high interconnectivity
high complexity



Complexity drives the survival of each organization in the group. Every organization maintains a balance between its size and complexity known as its **complexity ratio** (henceforth **c-ratio**). **Size** is the number of its inner-organizations and **complexity** is the number of its inter-connections. The c-ratio is like the fingerprint of the organization, and is instrumental in explaining a symbol's communication pathways across its arrangements of patterns. The equation for the c-ratio is: $\frac{\# \text{ of lines}}{\# \text{ of circle}}$



Balance

Relational Duality

Description:

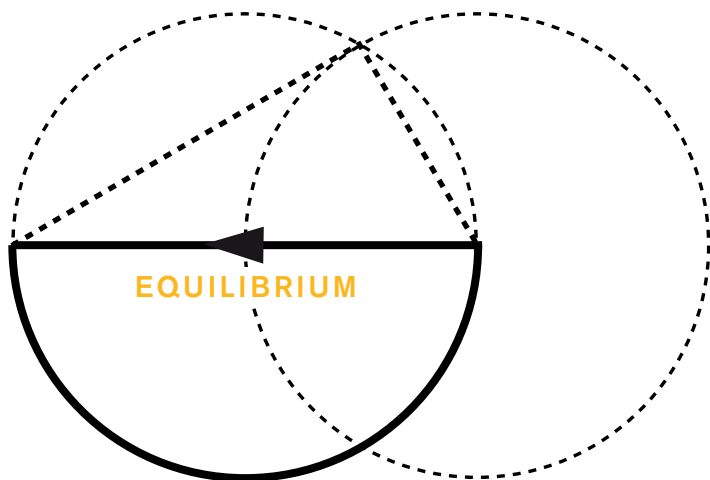
The Balance Pattern signifies the dynamic equilibrium of relational reciprocity. It is one aspect of the more foundational Pattern, Exchange. Balance illustrates the energy generated through reciprocal giving and receiving in trade between elements of a system. Giving must be dynamically balanced with receiving. The role of Balance is to generate systemic energy through exchanges.

Principle:

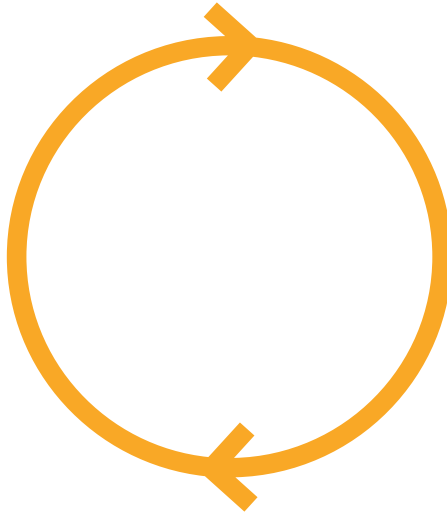
The principle of equitable exchange: the enduring health of any system depends on the dynamic equilibrium between giving and receiving, for a given context.

BALANCE

Equilibrating growth and change



The final stage of the mechanism forces a balance for the growth phase. It is akin to sleep and the unconscious, because it is a process that happens between the phases of growth and change. It's an ordering phase that extends from our commonly held notions of equilibrium. I believe that equilibrium can be explained in three slightly different, and somewhat conflicting manners: The first is by explaining its usage in physics as a function of disorder. According to the perspective of physicists, the Universe is always moving towards equilibrium and randomness; meaning that energy wants to be evenly dispersed across the universe. For this reason, two nearby gases of different temperatures are forced to equilibrate their particles. There is also a second notion of equilibrium that applies to intelligent structures. In this case, I believe that equilibrium represents some midpoint within a struggle between order and disorder. This means that as intelligent beings, we are constantly fighting the notion of complete disorder, and random dispersion. We are naturally forced by attraction into establishing an equilibrium between disorder and order. In the third case, as found in the fundamental mechanism, equilibrium acts to balance the distribution of physical particles with the distribution of patterns in mindscape, because the matter found within our environments must be reflective of pattern distributions. In all its cases, one fact about equilibrium remains constant: it describes the periodic management of an environment.



Cycle

Exchange Phases

Description:

The Cycle Pattern represents the circuit of phases involved in the interchange processes that characterize the operation of a system. It is one aspect of the more foundational Pattern, Exchange. Cycle illustrates the rhythmic, repeated sequence of actions that form an iterative circuit in trade flows. The duration and activity level of the phases needs to be balanced to ensure free flowing exchanges. The role of Cycle is to provide a sequence of repeated phases in any process.

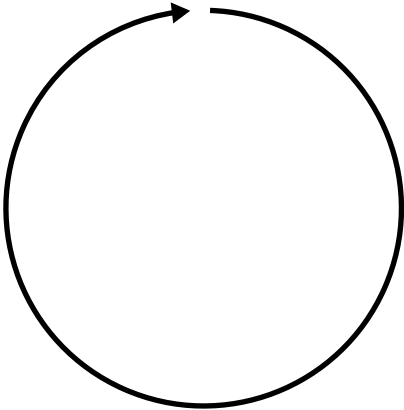
Principle:

The principle of cyclic exchanges: the enduring health of any system depends on the balance and integration of the phases in the iterative circuit of any exchange process, for a given context.

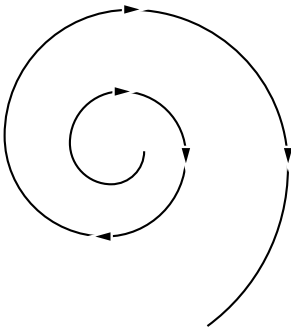
CYCLING

An ending flows into a new beginning

PUSHPULL + ROTATION



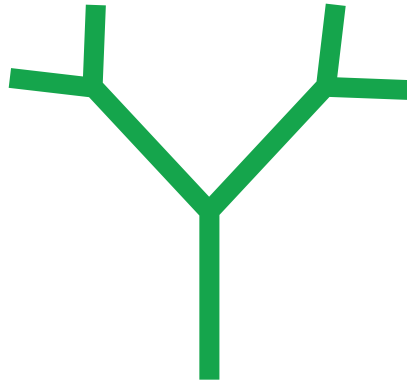
evenly pulled
concentration



unevenly pushed
interaction



The first diagram above explains a system with a neutral, or equilibrated c-ratio. Any increase or decrease in the c-ratio leads to the second diagram. Complexity produces a rotational friction that affects the diametric rotation of organizations in mindspace. Organizational diameters are dynamic entities and abstract mass manipulates them while forcing the production of spirals throughout mindspace. Furthermore, the spiral represents the warp that changes the probabilities of events occurring between symbols.



Growth

Creative Prosperity

Description:

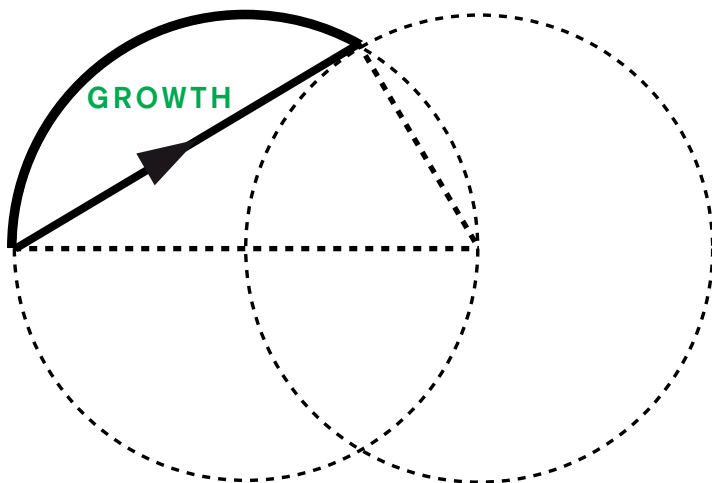
The Growth Pattern represents developmental increase. It is one aspect of the more foundational Pattern, Creativity. Growth demonstrates compounding additions through cycles of creative exchange between specialised elements of a system. Compounding increases must be balanced with the resources available to meet exponential growth. The role of growth is to create resources for system building.

Principle:

The principle of compound prosperity: the enduring health and evolution of any system depends on the appropriate balance and integration of exponential increase with resource availability, for a given context.

GROWTH

Concentration of patterns



The cycle of work (ie. fm mechanism) is comprised of 2 main phases, called growth and change, and 1 equilibrating phase called balance.

Let's consider a factory and a consumer: a factory is a supply-oriented organization, while a consumer is a demand-oriented organization. In order to build inventory for consumers, a factory must heavily exploit the growth phase of the mechanism. In doing so, it accumulates matter, or more precisely, it accumulates the possibility of matter. The growth phase represents the first phase of work, which collects patterns in abstraction. If patterns are well-collected, inventory will appear within the factory's environment as the balancing phase is completed. A great way of understanding the process of growth is by comparing it to the idea of work. The reason people work is to *accumulate* a quantity of stuff, and at some point in the future they will *spend* their stuff to induce change in their lives. This initial phase in the cycle of work assembles the potential energy (ie. time) in order to get stuff.

Going a bit further - money is a tangible replacement for growth and it represents the time stored within collections of patterns, which in-turn represents influence over matter. When consumers have money, they have access to a pool of potential material resources, and when they spend money, they trade from that pool to command bits of matter into desired positions.



Evolution

Dynamic Creativity

Description:

The Evolution Pattern signifies the leap to a higher level of complexity. It is one aspect of the more foundational Pattern, Creativity. Evolution illustrates the discontinuity a system undergoes as it makes the transformation to a qualitatively higher level of development. The shift to higher vertical levels of complexity must be balanced with horizontal adaptations at existing levels. The role of evolution is to make developmental leaps.

Principle:

The principle of creative leaps: the enduring health and evolution of any system depends on the appropriate balance and integration of shifts to higher levels of complexity and foundational adaptations at existing levels, for a given context.

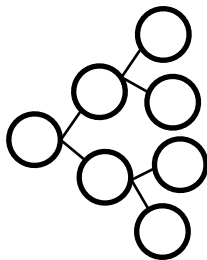
EVOLUTION

Hierarchical patterns

DARWINIAN EVOLUTION

'SURVIVAL OF THE FITTEST'

Applies to life
energy
neurons
thought
corporations
societies
everything



According to Dan Dennett, there are exactly 3 laws guiding evolution.¹

Replication
Variation (Mutation)
Competition

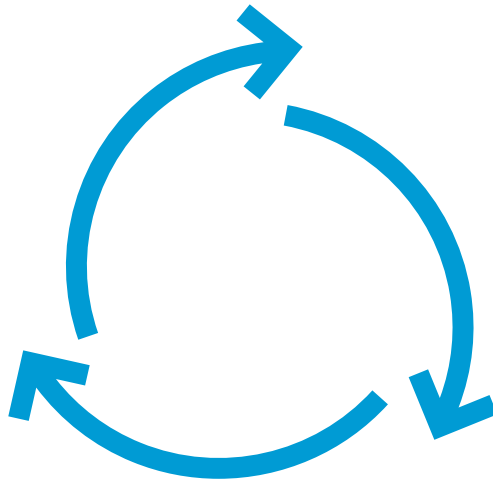
PRINCIPLES OF EVOLUTION

Symmetry
Attraction
Negation

PRINCIPLES OF MINDSPACE



The mindspace operates by the same principles governing Darwin's theory on natural selection: 'Only the fittest survive.' Since fitness is a function of relationships held, all symbols are subject to natural selection, and as a result, all material arrangements are also subject to it. A relationship is the most basic form of power for all living and non-living things, because it is capable of affecting the speed at which time flows. The purpose of the mind-space grid is to maintain relationships (to control time).



System

Integrated Dynamics

Description:

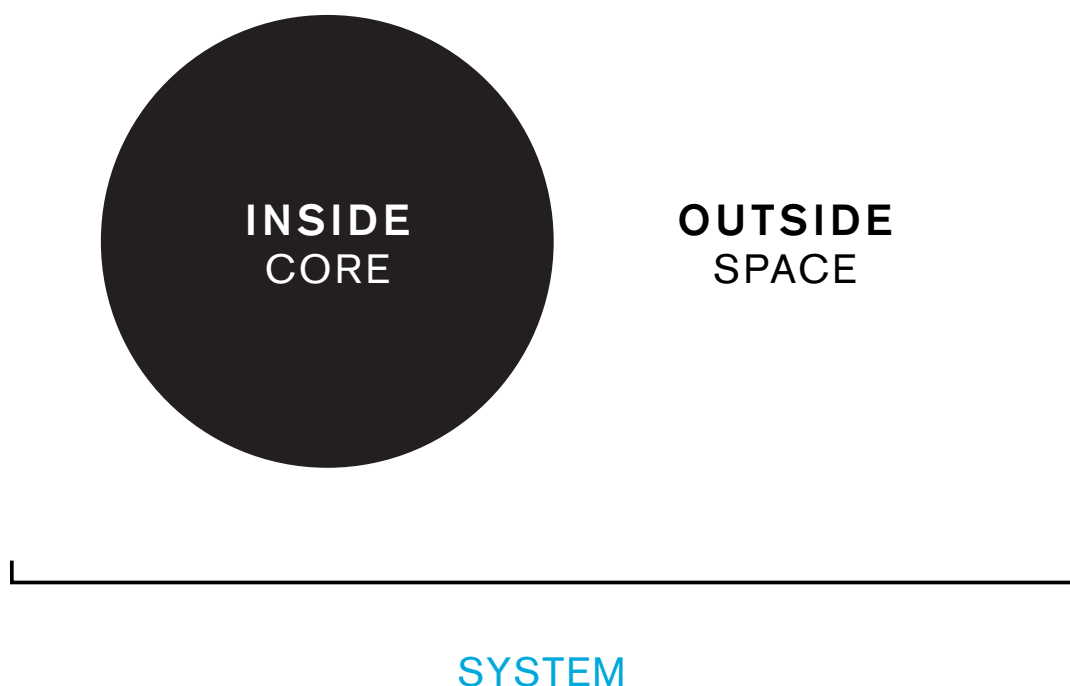
The System Pattern signifies the ordered activity of a synergistic whole. It is one aspect of the more foundational Pattern, Dynamics. System illustrates the cycles of activity supported by structures, polarities, rhythms, creative emergence, and relational exchanges of any integrated group of parts forming a dynamically ordered whole. Repeated integrated processes need to be balanced with aspects of randomness. The role of Systems is to maintain complex dynamic order.

Principle:

The principle of dynamic order: the enduring health and evolution of any system depends on the appropriate balance and integration of complex dynamic order and instances of randomness, for a given context.

SYSTEM

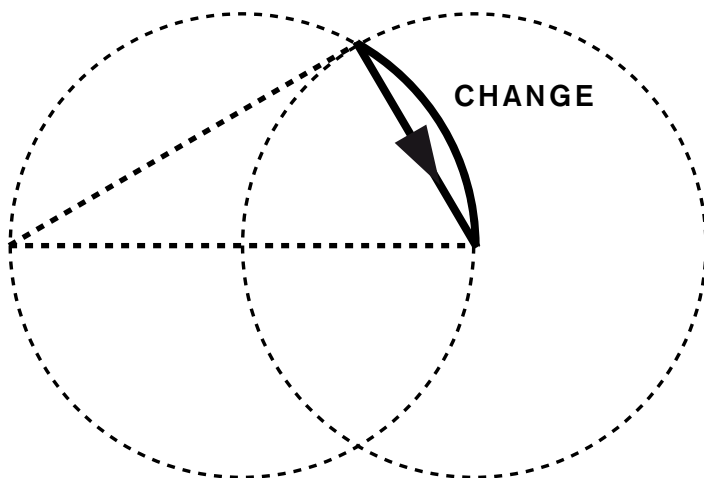
Boundary



The circle is the prototypical enclosed system. As a shape, the circle requires an *inside*, an *outside*, and a *border* separating its inside and outside. Scientists call this concept a 'system' and it can help model other concepts ranging from biological beings, to pockets of hot air, to the nucleus of an atom.

CHANGE

Interaction of patterns



Every work cycle always comprises of an accumulation and a spending phase. One can never spend more than it accumulates, and will often spend much less, especially once friction is factored in to the cycle. What is being accumulated and spent? - Energy / Resources / Time (all of which are the same).

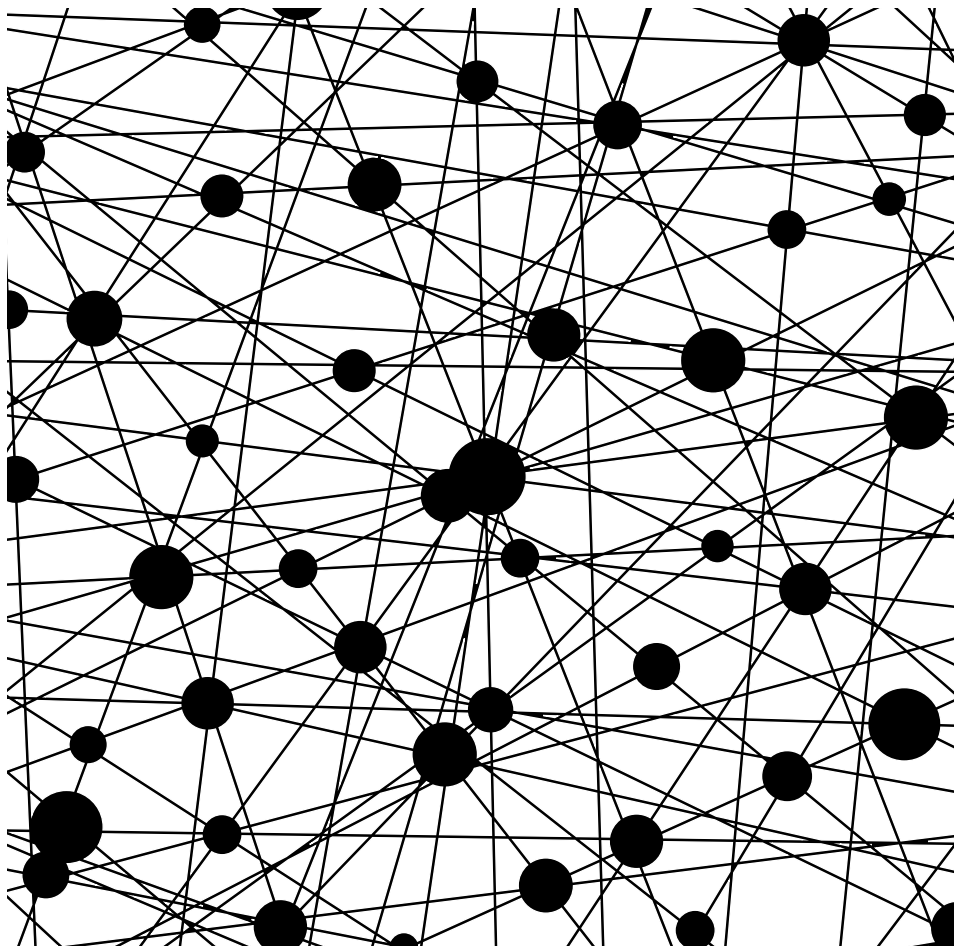
The phase following growth is called change, and its closely related to kinetic energy. Unlike growth, change is associated with space and physical motion. During a change phase, matter will appear to move, especially since it transpires within the *Vesica Piscis*.

Change causes matter to move **across** an environment and any consumer exploits the change phase by exchanging one set of resources for another. It's the necessary component of 'exchange' and it transfers energy between interconnected cycles of work. It is also associated with the collapsing of the wavefunction, the expenditure of time, and the spending of money.

Growing and changing can simply refer to the two basic functions of life: working and enjoying. These two concepts are forged into our minds by the dyad architectures of mindspace, and living is entirely made possible by the manipulation of dyads using these two geometrical phases.

NETWORKED SPACE

Communication pathways between systems



Star systems could potentially be in communication with one another through their light rays. In any graph of systemic communication, a line might represent an impulse between neurons, a chemical bond between atoms, a sound wave between people, cash flow between businesses, a transport route between cities, light rays between suns, or any other pathway exchanging information between organizations.