

SYSTEMS THEORY AND SUBJECTIVITY SEMINARS

1. WHAT IS A
SUBJECT?

Subject is an inner emotionally charged reality performing worlds in an irreducible tension towards and as an act of freedom in linguistic structure.

2. WHY IS THE
SUBJECT
PROBLEMATIC?

Subject is problematic because it is a singular irreversible process without totalizing model that would eliminate inner contradiction and existential mystery.

3. HOW CAN THE
SUBJECT GAIN
ACTIVE POWER?

Subject can gain active power by reflectively optimising self knowing and hierarchically integrating local action towards the universal level of social reality.

4. CAN WE THINK
SYSTEM AND
SUBJECT?

Subject and system can be thought by systemically formalizing the dynamic conceptual dimension of reflective becoming as the truth of reality itself.

SYSTEMS THEORY AND SUBJECTIVITY SEMINARS		
1. WHAT IS A SUBJECT?	HEIDEGGER	BERTALANFFY
	SUBJECT IS A: (1) PROBLEM OF TIME (FINITUDE); (2) REPRESENTING MEANING OF BEING; (3) WITH SYSTEMIC CATEGORIES OF PHENOMENA	SUBJECT IS A: (1) EQUIFINAL PATHWAY; (2) NAVIGATING VIA FEEDBACK; (3) CONSTRUCTING NEGENTROPY
2. WHY IS THE SUBJECT PROBLEMATIC?	FREUD	BERTALANFFY
	SUBJECT IS PROBLEMATIC BECAUSE: (1) ID HAS REASON OF ITS OWN; (2) PRODUCING AN EROTIC EGO BINDING PUZZLE; (3) CONSTRAINED BY SUPEREGOIC INJUNCTION	SUBJECT IS PROBLEMATIC BECAUSE: (1) SYMBOLIC DRIVE IS MYSTERIOUS; (2) STRONG RELATIONS ARE COMPLEX; (3) DETERMINISTIC REDUCTION BY SOCIAL SYSTEM
3. HOW CAN THE SUBJECT GAIN ACTIVE POWER?	NIETZSCHE	BERTALANFFY
	SUBJECT CAN GAIN POWER BY: (1) RECOGNIZING DEATH OF GOD; (2) CULTIVATING WILL TO POWER; (3) ANSWERING CALL OF OVERMAN	SUBJECT CAN GAIN POWER BY: (1) DEVELOPING SYSTEMIC KNOWLEDGE; (2) ORGANIZING TEMPORAL ARROW; (3) MASTERING INDIVIDUATION PROCESS
4. CAN WE THINK SYSTEM AND SUBJECT?	HEGEL	BERTALANFFY
	SUBJECT CAN THINK SUBJECT-SYSTEM BY: (1) IDENTIFYING UNITY IN OPPOSITION; (2) REDUCE PARADOX TO NEGATIVITY; (3) ACTUALIZE CONCRETE SELF-DETERMINATION	SUBJECT CAN THINK SUBJECT-SYSTEM BY: (1) WORKING ABSTRACT REALISM; (2) TRANSFORMING VIA CONCEPTUAL DEATH; (3) DETERMINATION AS OPEN PROCESS

1. WHAT IS A SUBJECT?		
INTERIOR EXPERIENCE	BERTALANFFY	TECHNICAL
	Subjective interior experience includes irrational and bestial behaviour that cannot be eradicated with modern education and material abundance; moreover it appears to contend with a strange fate structured by necessary tragedy (i.e. death, collapse) impossible to resolve; and also in its deepest intimacy a sense of freedom that resists total mechanization or external regulation, commanding respect scientifically and politically.	The subject is literally self-made / created internal to its own biological and linguistic organization, which means that the subject is fundamentally an “autopoietic” entity; such entities cannot be studied “externally” (from outside observation), making the subject a “black box” in relation to “others”, and a “white box” in relation to itself; thus knowledge is divided but entangled, between knowing of self and world, or between subjectivity and objectivity.
PERFORMATIVE TENSION	BERTALANFFY	TECHNICAL
	This interior experience exists in a permanent state far-from-equilibrium which means that it exists in a state of tension or struggle with an external environment; this environment must be openly interacted with to exchange matter-energy and information in order to maintain internal existence; in this interaction a subject can maintain its internal order in a homeostatic steady-state or even increase its order (lower entropy).	The permanent far-from-equilibrium state (tension / struggle) is a form of “turbulence” that can be navigated with knowledge; such motion is a form of self-organization that can lead the order of a system to transition from simple (few parts-connections) to complex (many parts-connections); such processes defy entropic tendencies by using inner and outer boundaries in intelligent ways to grow and learn instead of closing off to real change.
WORLD CREATION	BERTALANFFY	TECHNICAL
	Throughout most of science subjective knowledge has been used to explain (bring order to) external chaos for internal order; such a motion may be produced by the imagistic / phenomenal gestalt function transforming a chaotic background into a useful ordered figure; from this new perceptions / conceptions of the world emerge from openness to working with the chaotic unknown, i.e. world organization literally grows / develops.	Thus the subject can develop the world from combining a knowledge of physical constraint (turbulence) with conscious visions (images) of what could / might be given such constraints and given its knowledge for action; this is a formalized division between realized complexity and potential complexity; real complexity is structured by hierarchical orders within causally entangled levels from simple to complex, and potential complexity is chaos.
SYMBOLIC FREEDOM	BERTALANFFY	TECHNICAL
	In creation-development of the world the subject must recognize there is no “absolute” symbolic system that would explain / capture the world as a whole totality; and no “absolute” freedom of motion / action that would allow unlimited growth; it is the organizing drive itself which brings the subject’s meaning, etc.; thus extreme closure / openness may be caused by internal symbolic disfunction disrupting inner capacity to drive the world.	Freedom as an organizing drive of the world must contend existentially with increasing complexity of the environment which means contending with uncertainty (not knowing) while building contingent-pragmatic bodies of knowledge (certainties) to help it maintain its already achieved order while continuing to grow in new future forms; this relation between inner knowledge and external information has no known feedback limit or end but can increase indefinitely.

2. WHY IS THE SUBJECT PROBLEMATIC?		
SINGULAR HISTORY	BERTALANFFY	TECHNICAL
	History is singular because its a process with no double and does not repeat, moreover it moves in one direction, from past to future in an open and irreversible arrow; the complexity that emerges is a result of strongly interacting or connected elements which make effects unpredictable (nonlinear); thus the results of historical process are non-determined allowing organizations to emerge in seeming contradiction to reductionist law.	The historical arrow of time is structured by organizational knowledge processes directing complex flows of energy in forms that will maintain and grow order; in this process formation of strongly interacting relations manifest new realized complexity but also new potentials for the system in the future; these future potentials exert a causal pressure on the present system for action by giving it a visionary sense of emergent possibility requiring new principles.
MULTIPLICITY MODELS	BERTALANFFY	TECHNICAL
	The models subjectivity develops to bring order to the world reveal a universe of diverse and repeating forms (e.g. atoms to organisms); but for sense-making purpose models are closed-weakly interacting representations operating deterministically to make linear predictions, presupposing tendencies to equilibrium or definite ends in disorder, and governed by immutable physical laws in being; thus obfuscating inherent historical nature.	Modelling is the organizational knowledge process itself which classifies a diversity emerging from a singularity (e.g. big bang) suggesting that all forms are the result of broken symmetry (disorder); analytical separation into weakly-interacting entities allows precise calculation of simple systems future ends in a direction of unorganized equilibrium (symmetrical disorder); this allows all possible action to become situated in closed loop idealization (law).
MENTAL PARADOX	BERTALANFFY	TECHNICAL
	This paradox produced by subjectivity becomes most evident when modelling subjective mentality itself because all human activity is reduced to robotic pattern with no capacity to explain our inner reality; in order to overcome this paradox we must start to formalize order of self from the nature of our own chaos that appears on the emergent level of psyche and symbol which may be governed by as yet unknown laws or principles.	Subjective mind is not absolutely determined by the past, possessing capacity for present (real-time) computation necessary for success in complex environments; this capacity has within it image potentials of an open future requiring experimentation; this means that subjectivity accesses an information landscape with no correlate; this capacity allows the emergence of realities escaping any and all closed loop ideals of physical law or biological instinct.
EXISTENTIAL MYSTERY	BERTALANFFY	TECHNICAL
	In focusing on emergent subjective levels what becomes evident is a meaning problem which cannot be erased by closed models (e.g. education, abundance), but must be self mediated as an open processual tension; such an existential diagnosis explains subjective tendency to search for intellectual, aesthetic and moral problems in a self-determined symbolic drive even when survival need has become regulated by homeostatic mechanism.	The meaning problem for subjectivity operates in and as a massively parallel virtual search for ideal design capable of withstanding turbulence and constraint; ideal designs are tested through self repetition governed by desired aim, self-organization results from this repetitive testing; ideals are representatives of socio-symbolic necessity beyond both physics and biology and come to form the collective niche shaped by individual and shared subjective desire.

3. HOW CAN A SUBJECT GAIN ACTIVE POWER?

EFFICIENT OPTIMIZATION	BERTALANFFY	TECHNICAL
	The main goal of systems science is to aid subjectivity in reducing friction and cost in complex environments by producing synergies between strongly interacting elements; this means that systems science is a science of orienting organized wholes capable of navigating high complexity; such science is necessary after the historical consequence of universal mechanization which opened new possibilities for the growth of subjective potential.	In order to produce synergies between strongly interacting elements subjectivity must control-direct internal-external complexity problems; this requires increasingly complex (diverse) knowledge structures to match the level of the problems for maintaining-growing order; such knowing takes the form of links and nodes that are the weight or density of self-identity in becoming; the space and time of the self are measured by its capacity to solve problems.
CYBERNETIC KNOWING	BERTALANFFY	TECHNICAL
	Cybernetics is an essential form of systems science in its emphasis on circular self-reference for control and direction; this is achieved by understanding the process of feedback between self and the environment; in open transformation of complex information to self knowing new order can be stabilized; such transformation is the key to describing a “negentropic” organizational force contradicting presupposed ends in equilibrium.	Complexity can objectively be a source of chaos or order depending on the subjective knowing of the self; this knowing is the key to control and direction of energy flows necessary to maintain and grow order; the weight-density of self-identity networks (link-node) tend to form a closed ideal that constantly measures self against the background of external disruptions to closure; the absolute ideal would maximize organizational process and minimize disruption.
HIERARCHICAL STRUCTURE	BERTALANFFY	TECHNICAL
	Conceptually structured organizations of the external world appear to be governed by ordered hierarchies from sub-atomic particles (quarks) to supra-individuals (societies); however the greatest mystery of all is how social order can be improved; this mystery involves subjective freedom which cannot be governed by closed loop idealization (social law); thus improvement must be relational, understanding individuation complexes.	Our social participation in the increasing evolution of complexity from the start of the universe to the present involves understanding the interaction between the levels which are all entangled from simpler bottom-up process to more complex top-down process; internal to the psychic -social level real boundaries are natural and conceptual; in order to grow these boundaries have to be emotionally internalized and negotiated as an individuation process.
CONCRETE UNIVERSALITY	BERTALANFFY	TECHNICAL
	The start of understanding complex individuation must privilege or include difference inside of its own unity; thus universality is not externality independent of self but gains the character of all individuated selves in an active historical becoming; this universality is dynamic and spontaneous (un-mechanized; un-predictable), and constantly growing through self-posed challenges manifesting beyond base-level biological survival.	Every conceptual unity is an element of self-differentiation via conscious abstraction; this unity is intuitively and imaginatively mediated before testing by reason in the world; this process involves other forms of conscious abstraction whose reaction to the difference cannot be predicted but increasingly anticipated via inductive knowing emphasizing real-time experience over a priori conceptualization before integrating for deductive use.

4. CAN WE THINK SYSTEM AND SUBJECT?

SYSTEMIC CONCEPT	BERTALANFFY	TECHNICAL
	The concept of system as a fundamental notion for subjectivity can be found at the origin of modern science and philosophy (e.g. Leibniz, Hegel, Whitehead); its highest use value is in processual formalization of all complex levels by identifying isomorphic principles; such conceptualization is scientifically necessary after the emergence of the cybernetic revolution which revealed the concrete limits of analytic reduction.	The systemic concept synthesizes all reality from physics to mind through identification of structural isomorphic processes; analysis of structural isomorphic processes allows for coherent holistic understanding of open and hierarchical phenomena that are strongly interacting and connected by feedback; this view leads to a meta-level understanding of knowledge processes becoming in the historical social reality as the most real truth of our being.
FUNDAMENTAL FORMULAS	BERTALANFFY	TECHNICAL
	The main theoretic and scientific challenge for systems theory is in grappling with fundamental formalisms emerging in the cybernetic-information revolutions; the formalisms involve problems of thinking subjectivity internal to social games, communication, learning, and knowing, all of which involve paradox in their precise mathematical formalization; these formal models can describe deterministic computation but not subjectivity.	System science strives for the classical goal of universal mathematical codification as the most precise form of self knowledge; however the systemic revolution forces us to confront the becoming of maths which occurs heuristically (non-deterministically) in relation to dynamic complexity of real life (games, communication, learning); this form of computation functions because ontology appears uncertain and incomplete, thus inherently adventurous-mysterious.
REFLECTIVE SYSTEM	BERTALANFFY	TECHNICAL
	In including subjectivity in the model systems gain organization through intrinsic self-reflectivity; this move is radical as it reduces physical organization to a process of mind or spirit attempting to compute itself (its own origin); however self appears to be nothing external but this process of reflectively originating ideas in tension/ constraint; thus in terms of identity there is nothing outside this precarious-fragile self-reflectivity or “ego”.	The abstract precision of mathematical-symbolic systems allows for internalization of systems presupposed to be external in a reflective looping process; this loop moves from self to environment and back to self before a more mature process of self-externalization in the real of social history; this level of self-externalization may be referred to as a type of subjective objectivity which introduces new knowledge into being, in essence creating objectivity.
DIALECTICAL ABSOLUTE	BERTALANFFY	TECHNICAL
	The process of reflective mental spirit exists without any absolute background outside of its own intrinsic biological-linguistic organization produced through the history of its own process; this independence of any external background means the truth of reality is being mediated internal to networks of self-consciousness; the truth of reality can be read in desire for internal freedom and love on the conscious level of the symbolic in-itself.	In the historical process of spiritual becoming the self must mediate between open and closed states without falling too far into one extreme which could lead to dissolution; in achieving this organizational process the self becomes an extremely dynamic form of order different from anything else in being; such an ordered form is the very adventure-mystery of being itself computing problematic experience in a truthful and purposive action towards the unknown.

SYSTEMS THEORY AND SUBJECTIVITY SEMINARS

INSTITUTIONAL

1. WHAT IS A SUBJECT?

- (1) BRING PARTS TOGETHER THROUGH UNDERSTANDING INNER HOLE OF ABSENCES
- (2) CHALLENGE MECHANISM-DETERMINISM TENDENCY WITH ORGANISMIC THINKING
- (3) EMBRACE PERMANENT IMBALANCE IN INCREASING COMPLEXITY OF WICKED PROBLEMS
- (4) OPERATE ON PRINCIPLES OF THE SYMBOLIC CAPABLE OF FILTERING PHENOMENAL PERSPECTIVES

2. WHY IS THE SUBJECT PROBLEMATIC?

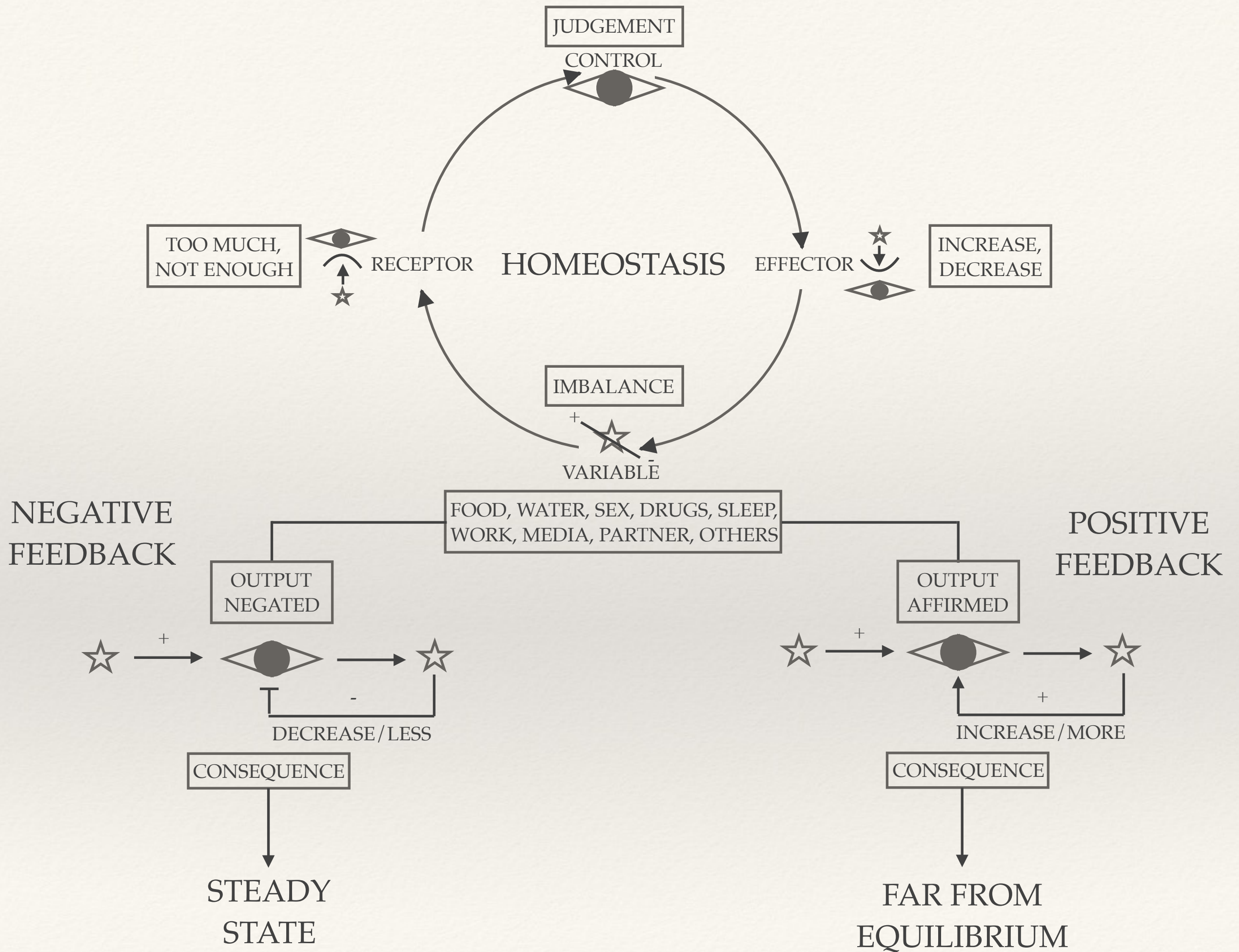
- (1) GENERAL ONTOLOGY AS COVERING UP TEMPORAL PROBLEMATICS + UNCONSCIOUS MENTALITY
- (2) IMPOSSIBILITY OF GENERATING UNIVERSAL-UNIFIED EPISTEMOLOGY (“MODEL” / “MODELLING”)
- (3) MIND ITSELF IRREDUCIBLY SEPARATED INTO DISTINCT-UNIQUE PERSPECTIVES WITHIN LOGOS
- (4) EXISTENTIAL MYSTERY FOUND IN IDEOLOGICAL “STYLE” “COLOURING” CONCEPTUAL SYSTEM

3. HOW CAN THE SUBJECT GAIN ACTIVE POWER?

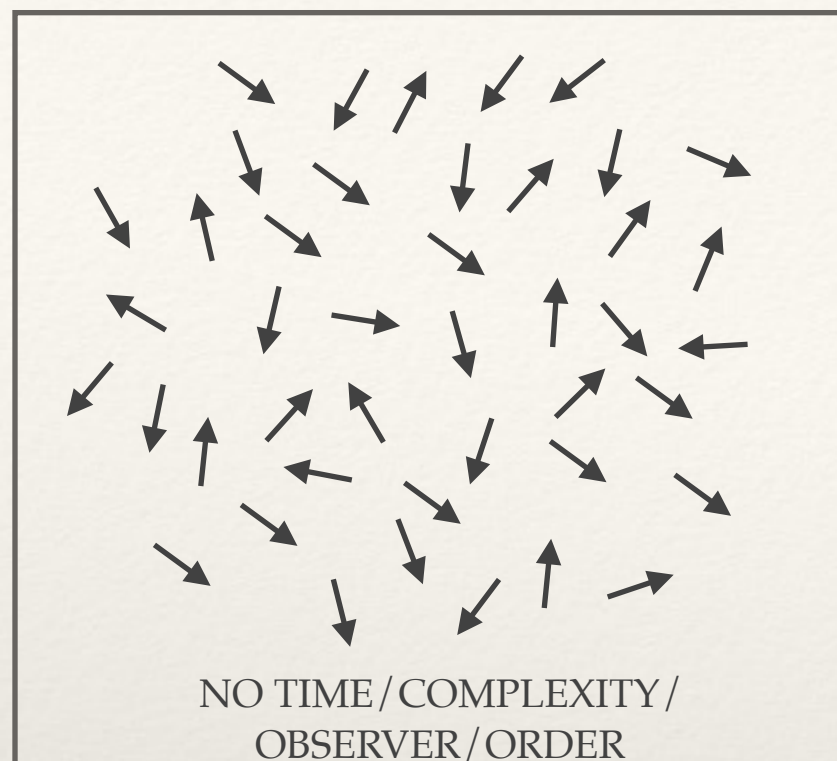
- (1) INTERDISCIPLINARY COMMUNICATION-COOPERATION VIA PARTICULAR-GENERAL FEEDBACK
- (2) ALL SYSTEMS IN EXISTENCE ARE FUNDAMENTALLY OPEN (EVEN IN APPEARANCE OF CLOSURE)
- (3) ALL SYSTEMS ARE STRUCTURED INTO HIERARCHIES COMPOSED BOTTOM-UP / TOP-DOWN
- (4) META-SYSTEM OF SYSTEMS PERFORMS GESTALT FUNCTION OPENING UNIVERSAL CONSTRUCTION

4. CAN WE THINK SYSTEM AND SUBJECT?

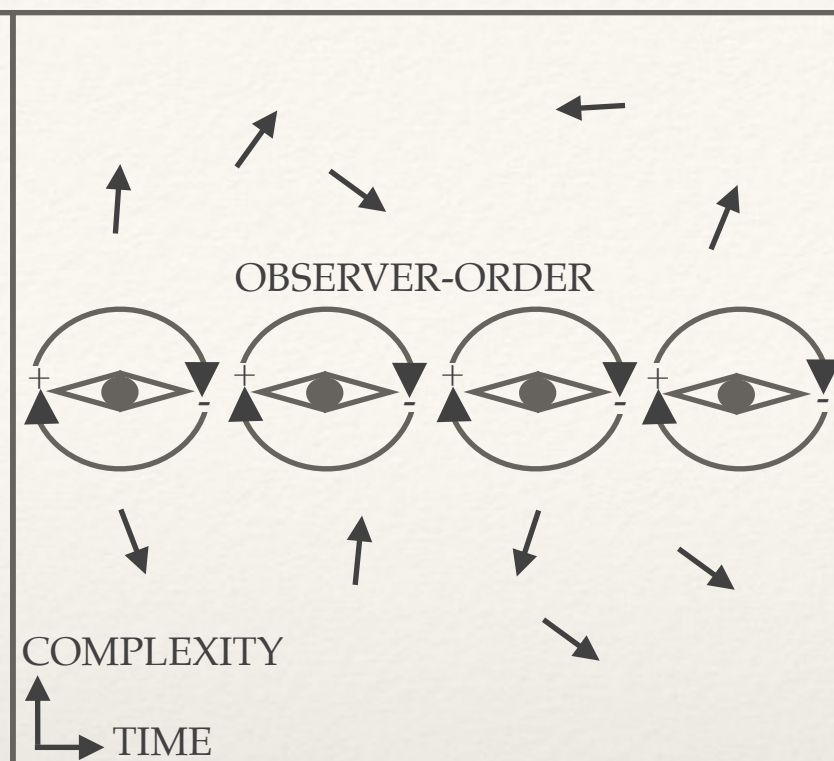
- (1) RECURRENCE OF ISOMORPHIC PROPERTIES AT DIFFERENT SYSTEM LEVELS STRUCTURES CONCEPT
- (2) FEEDBACK, HIERARCHY AND OPENNESS INVOLVED AS SOLUTIONS TO FUNDAMENTAL FORMULAS
- (3) FUNCTION (WORK) OF SYSTEM AND FORM (STYLE) OF SYSTEM ENTANGLED IN CAUSAL LOOP
- (4) METAPHYSICAL REVERSAL OF DIFFERENCE AND UNITY INVOLVED IN BECOMING OF CONCEPT



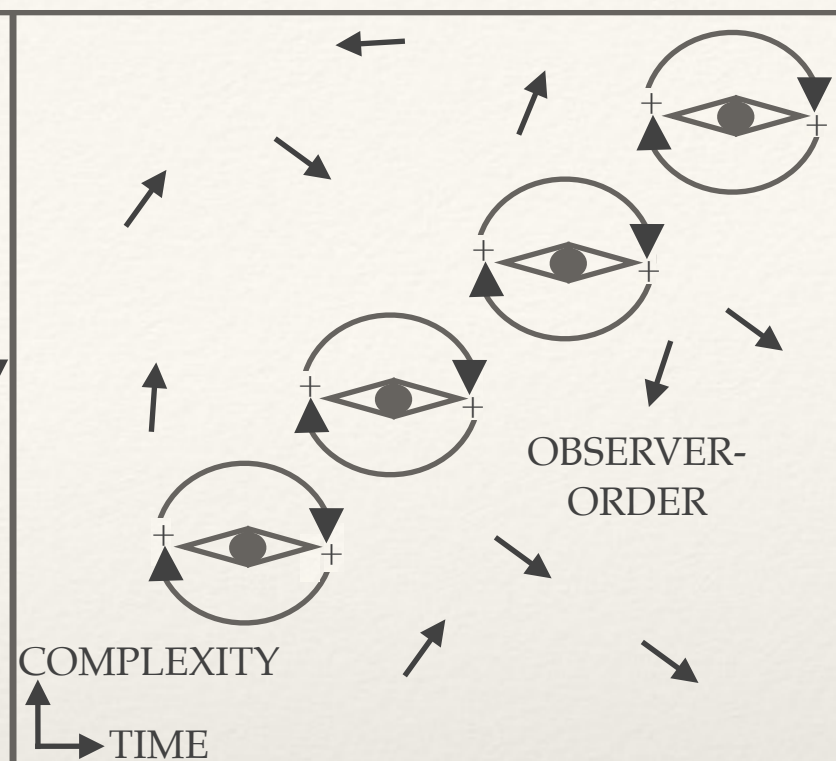
EQUILIBRIUM



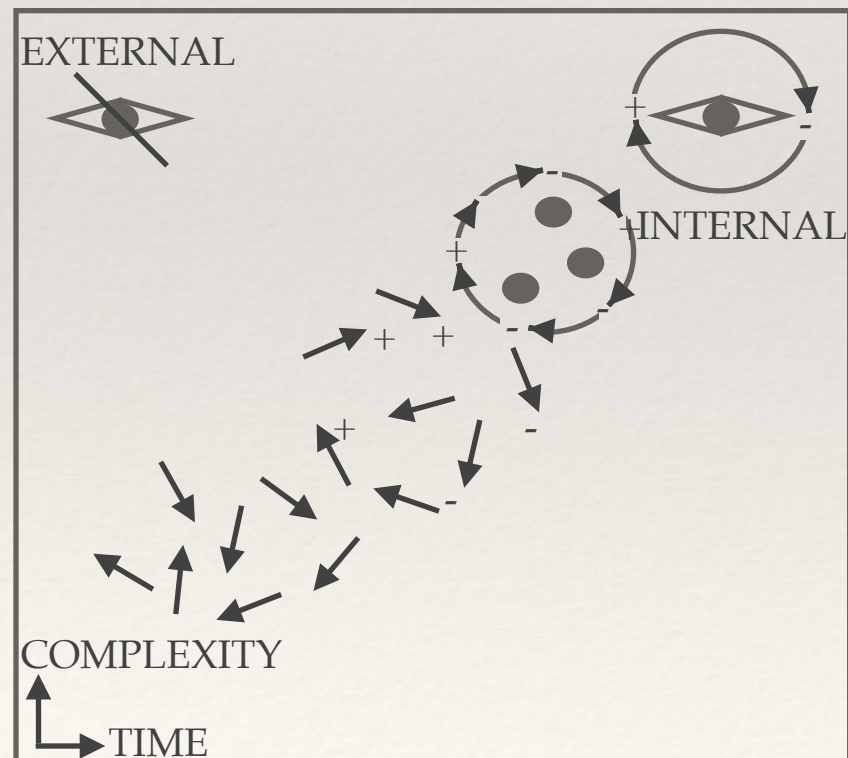
STEADY-STATE



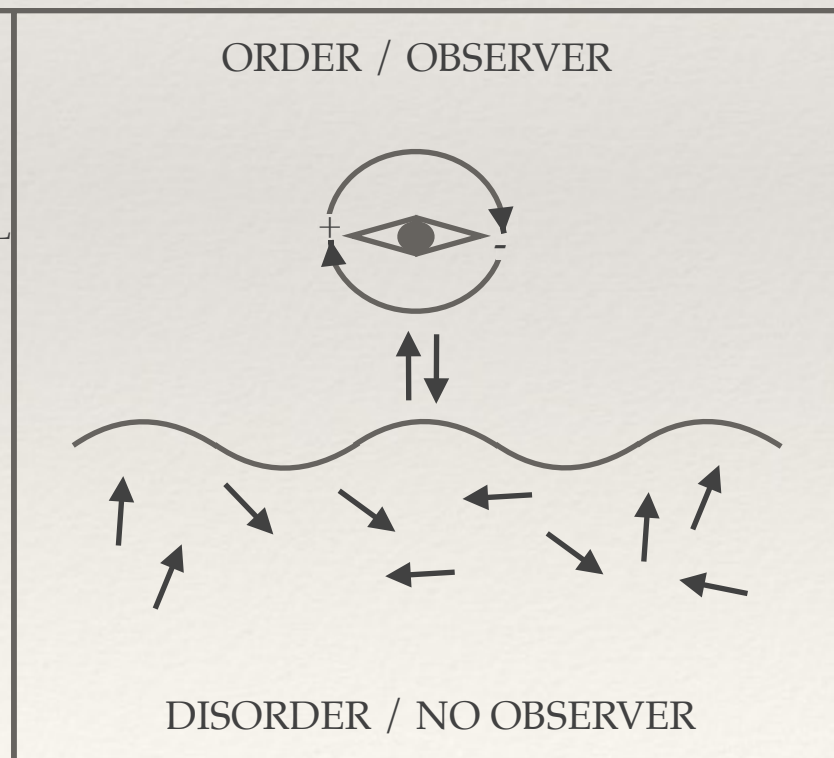
FAR-FROM-EQUILIBRIUM



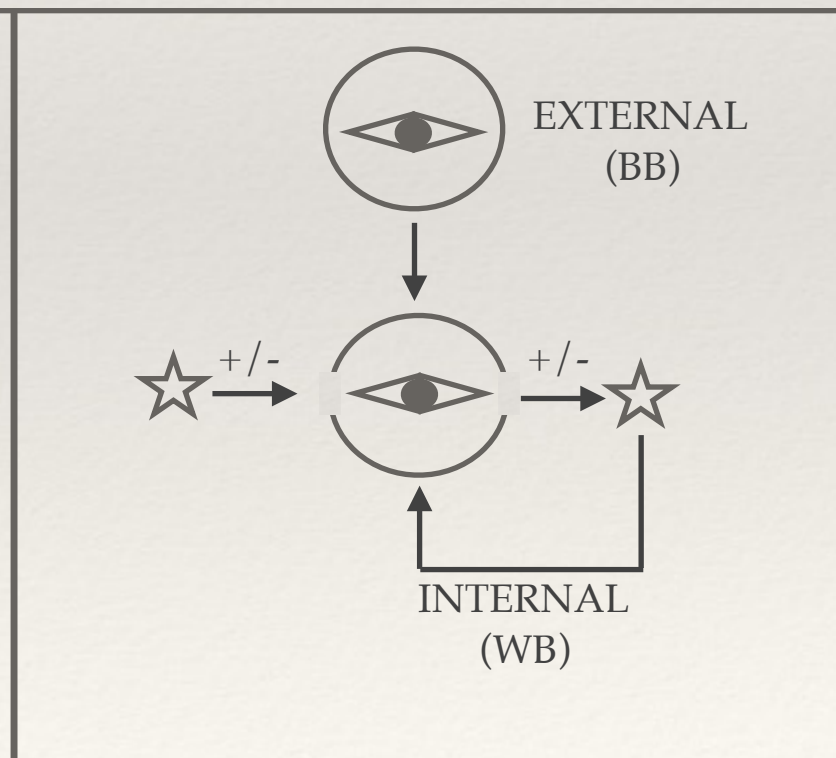
SELF-ORGANIZATION



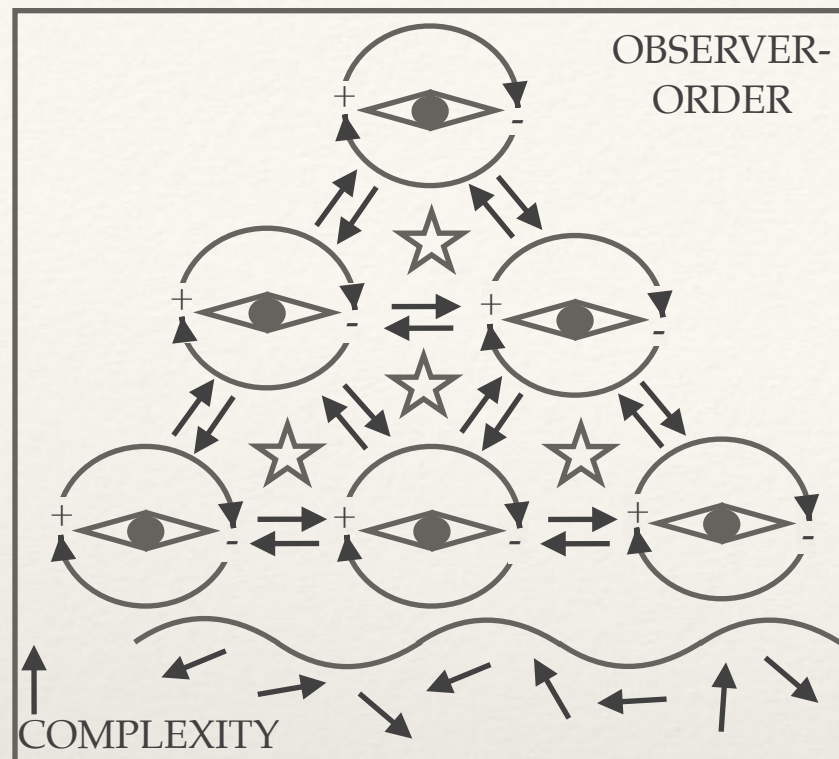
AUTOPOIESIS



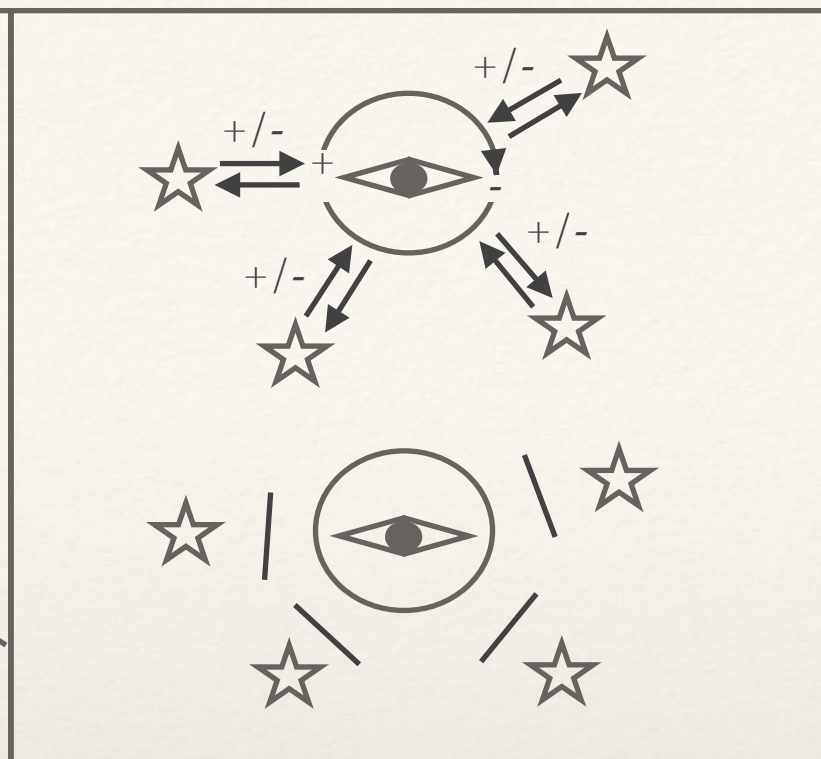
WHITE / BLACK BOX



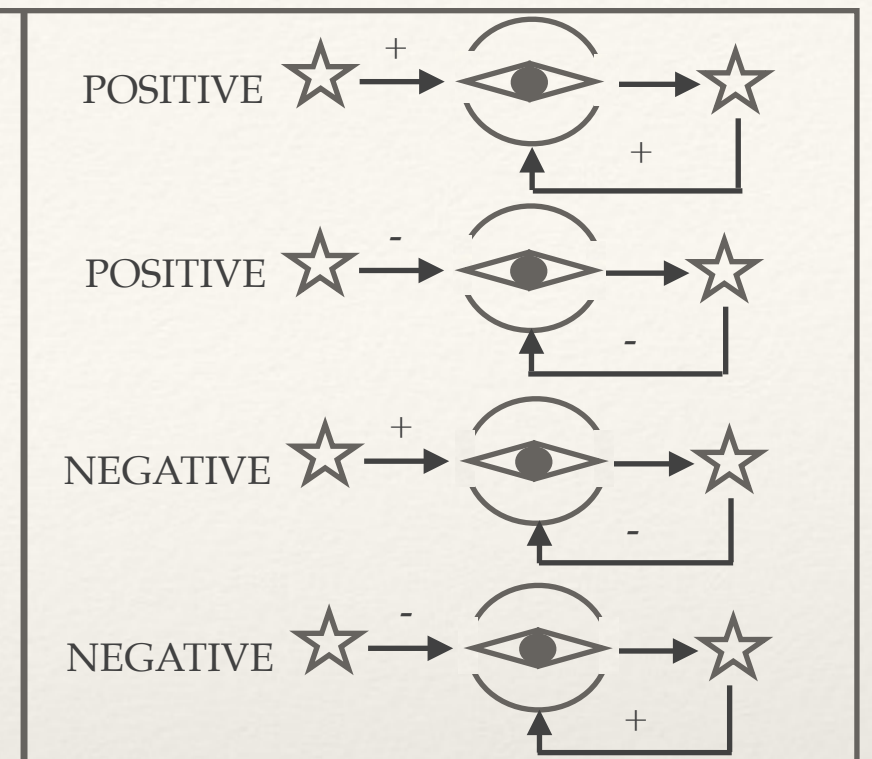
HIERARCHY



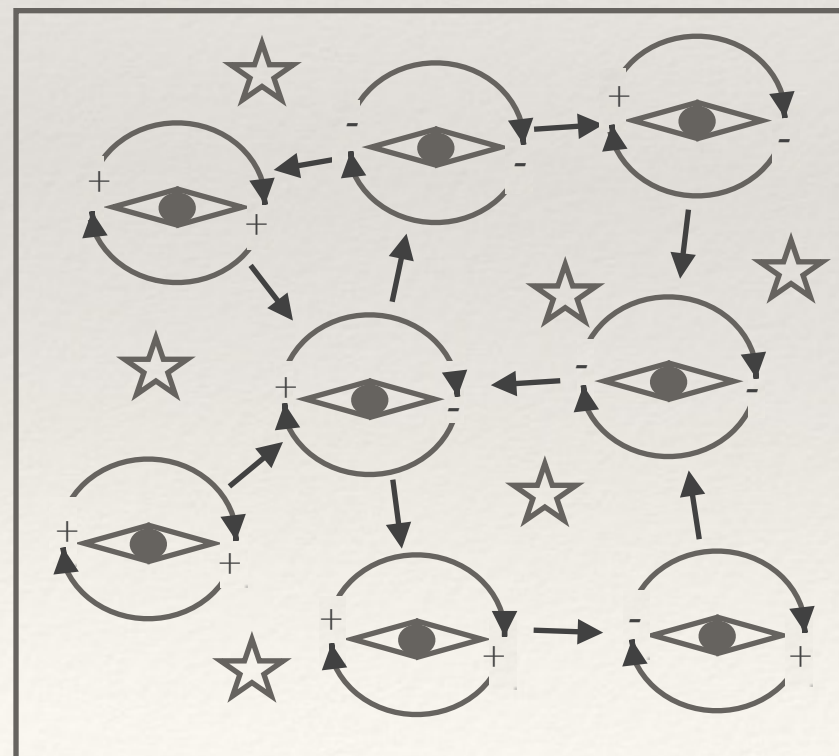
OPEN / CLOSED



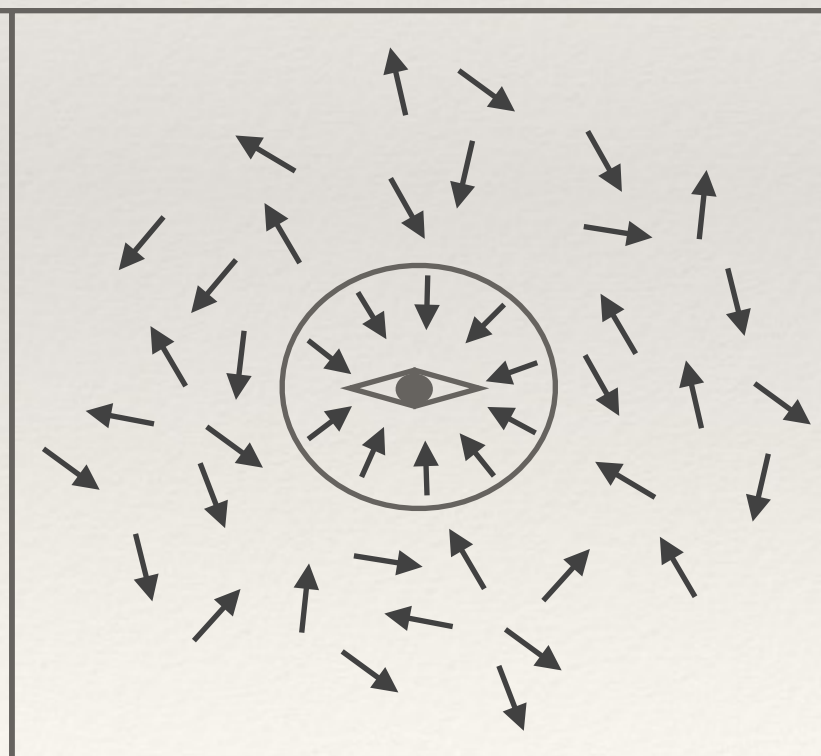
FEEDBACK (P / N)



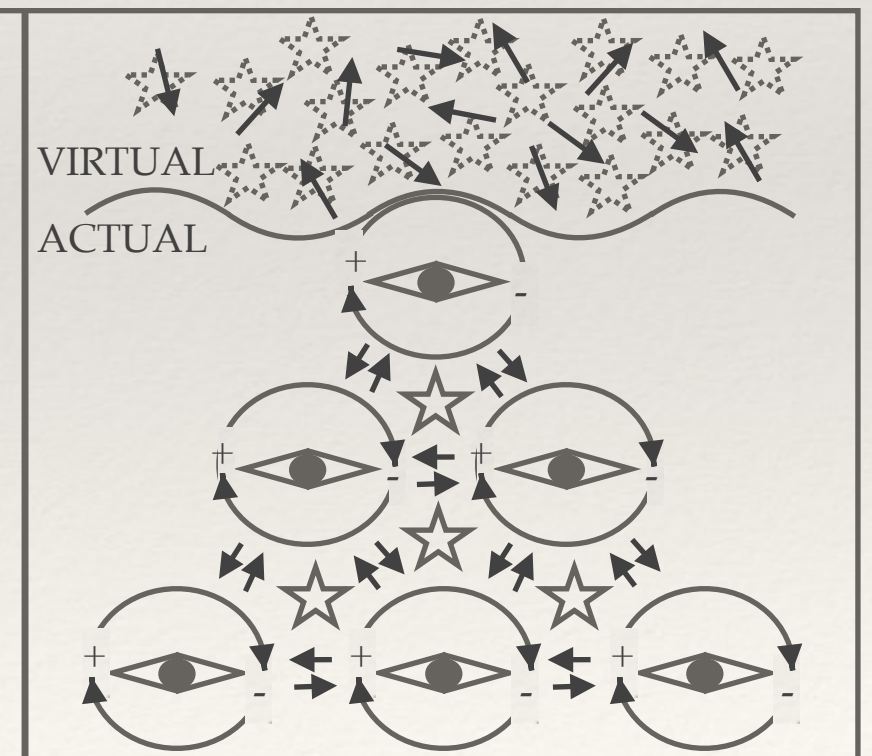
COMPLEXITY



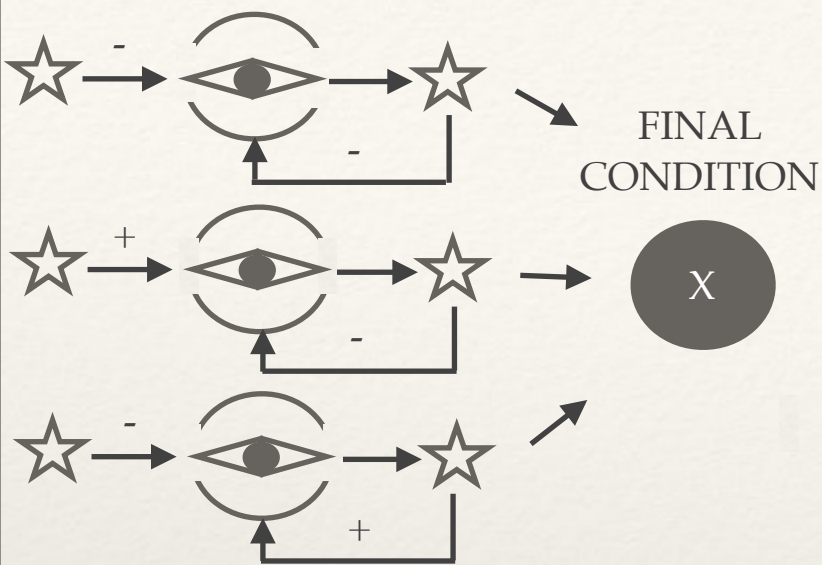
ORDER / CHAOS



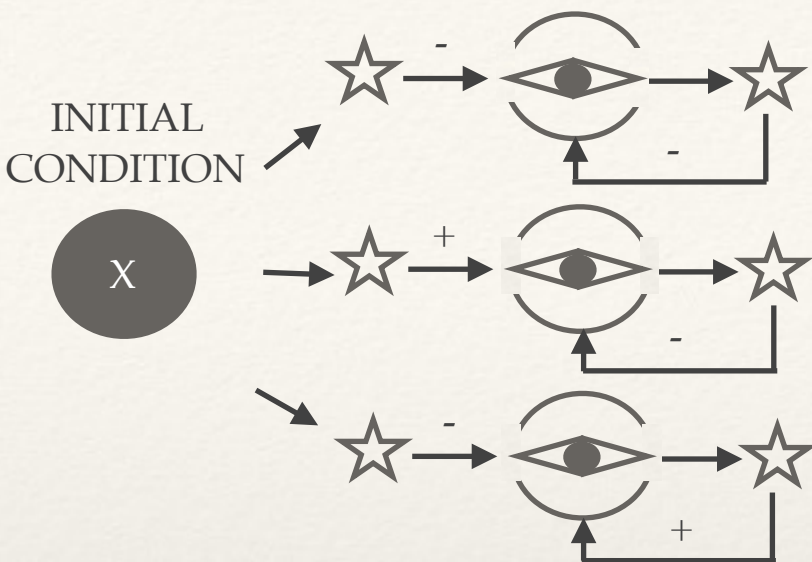
REAL / POTENTIAL



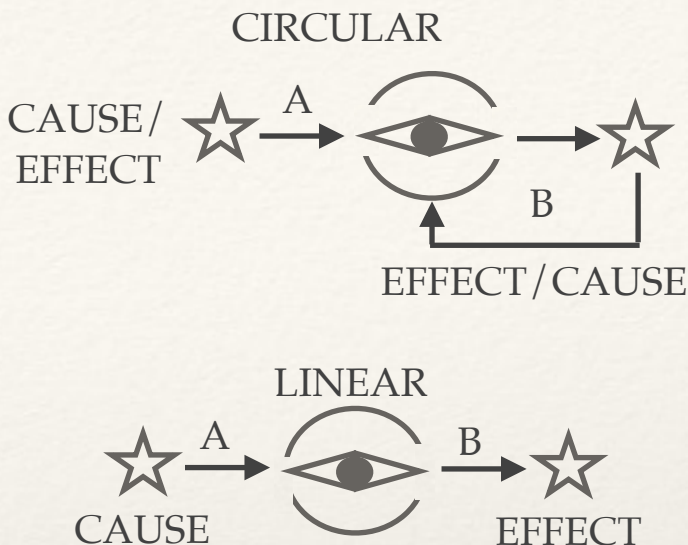
EQUIFINALITY



MULTIFINALITY

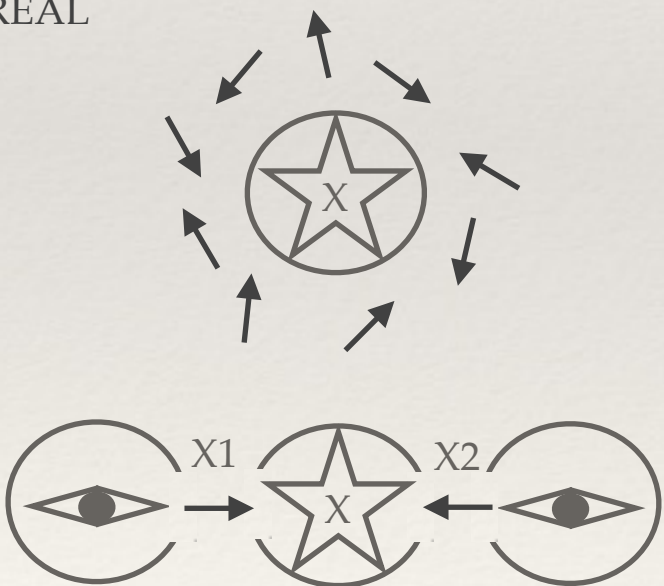


CAUSALITY

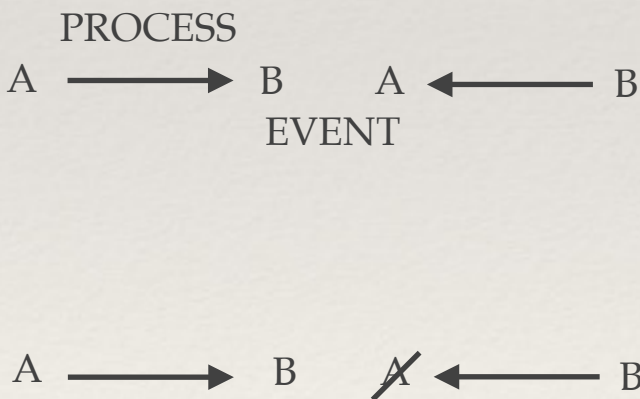


REALISM/PERSPECTIVISM

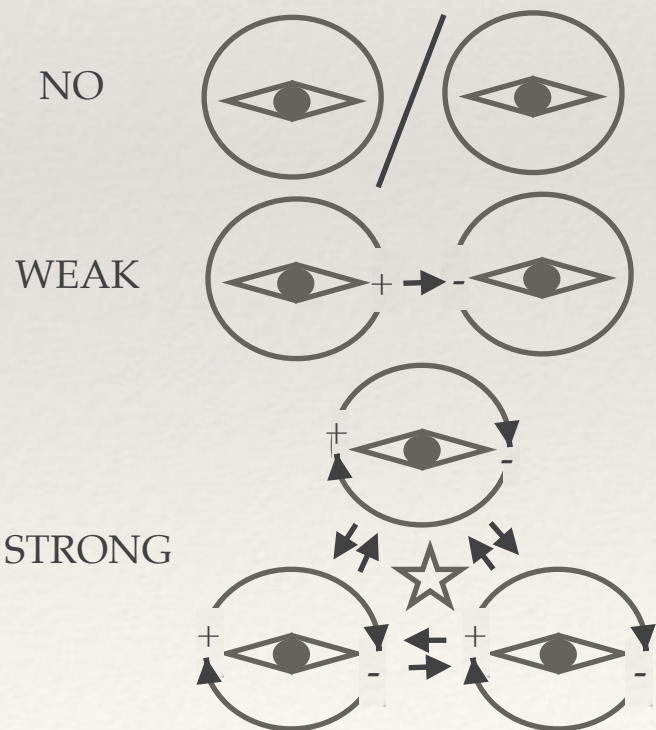
X=REAL



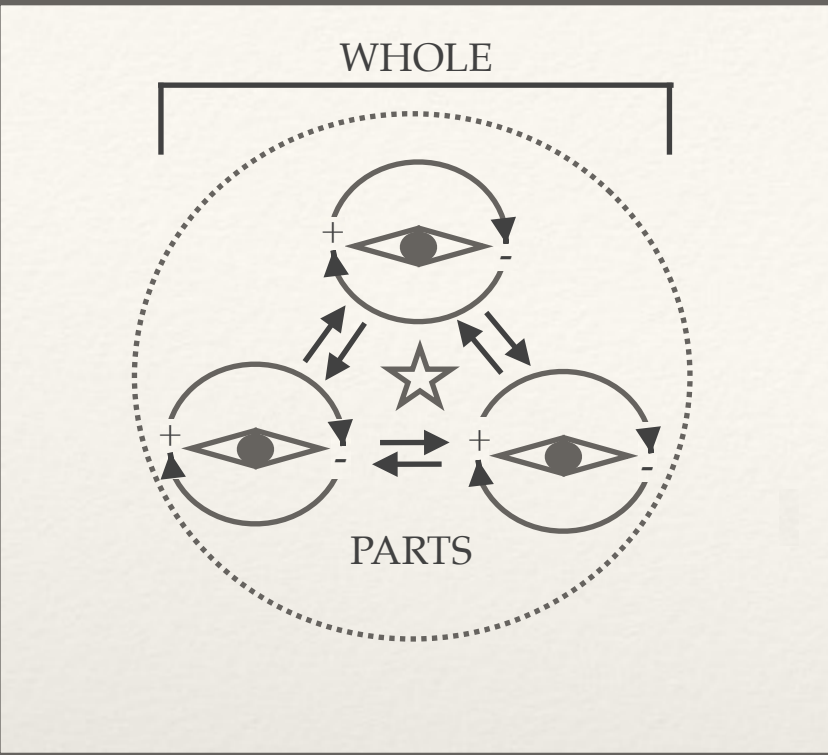
IR/REVERSIBLE TIME



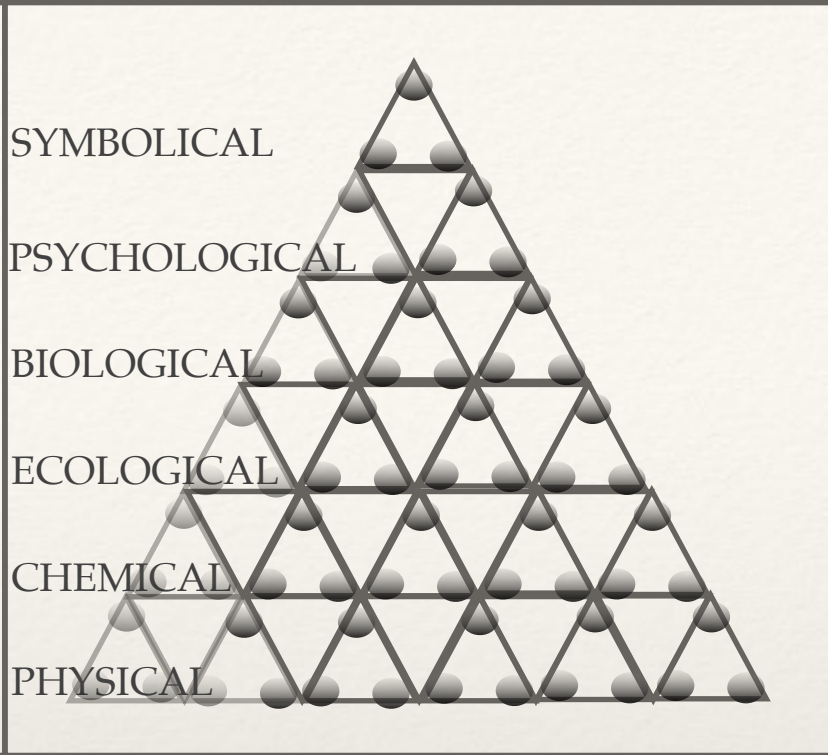
INTERACTION



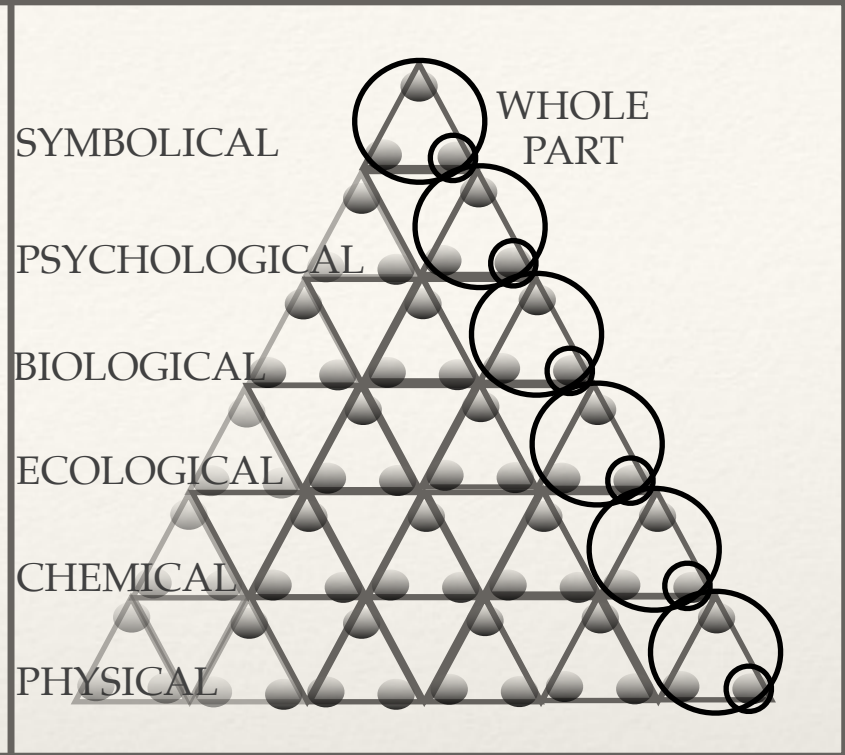
SYNERGY



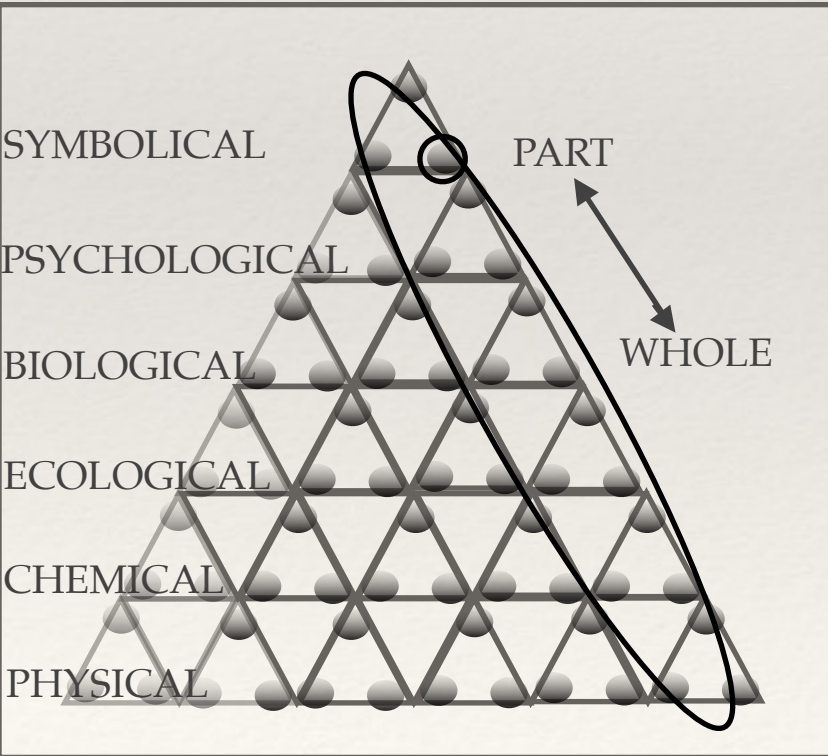
COSMIC LEVELS



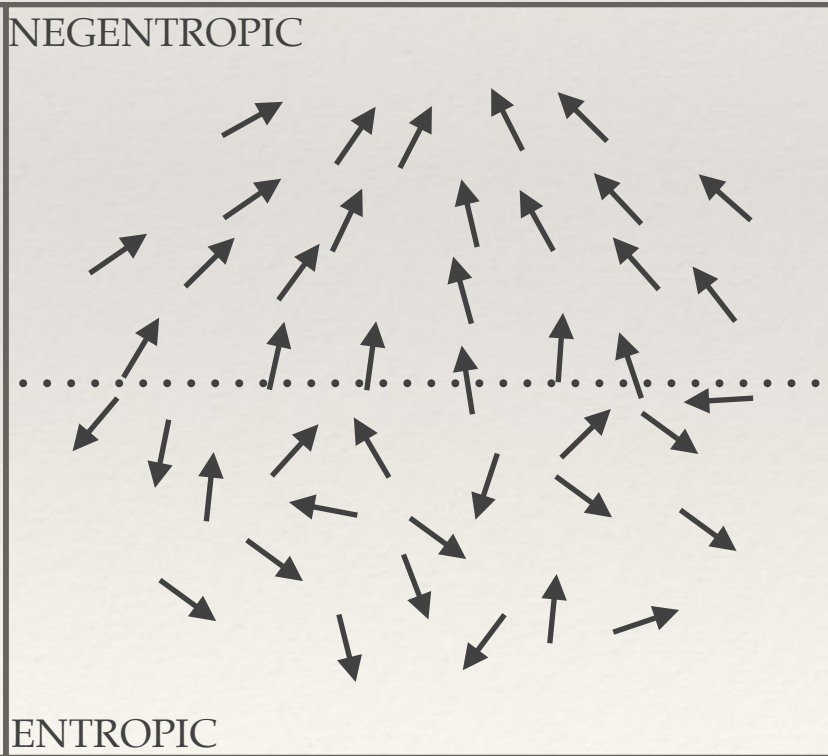
REDUCTION / HOLISM



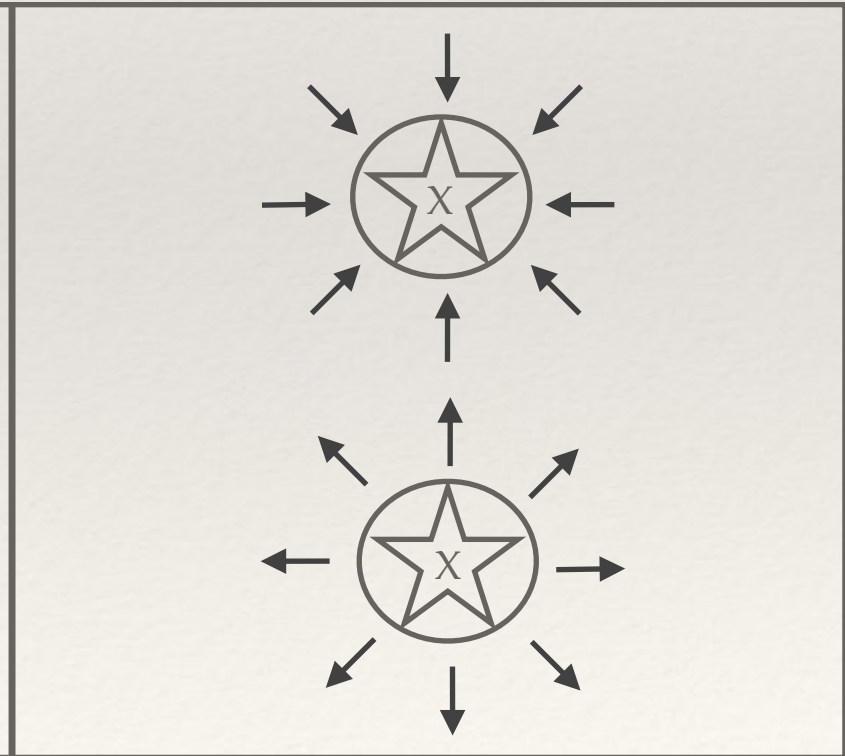
HOLON



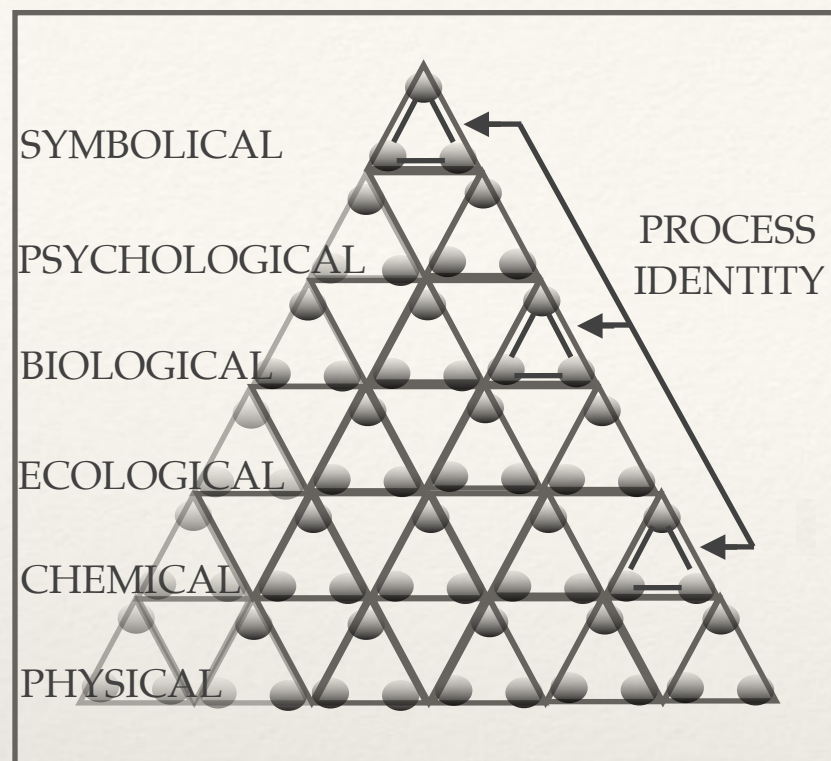
NEG / ENTROPY



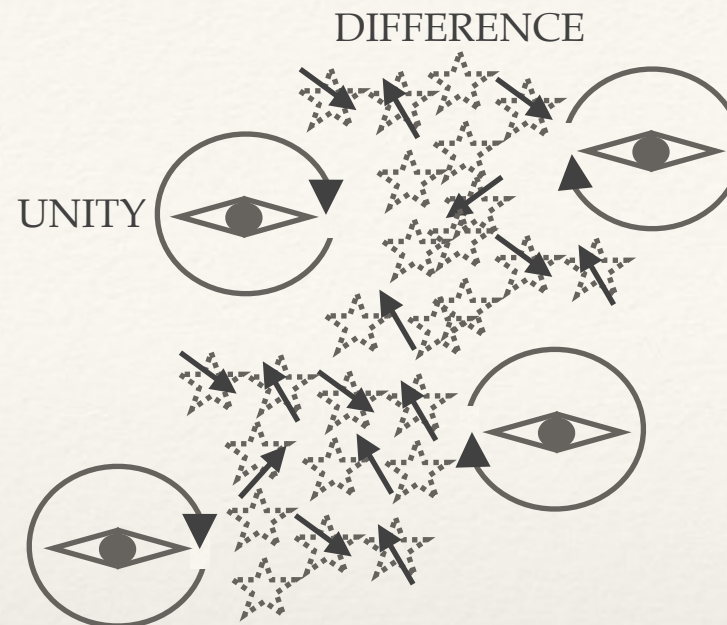
CON / DIVERGENCE



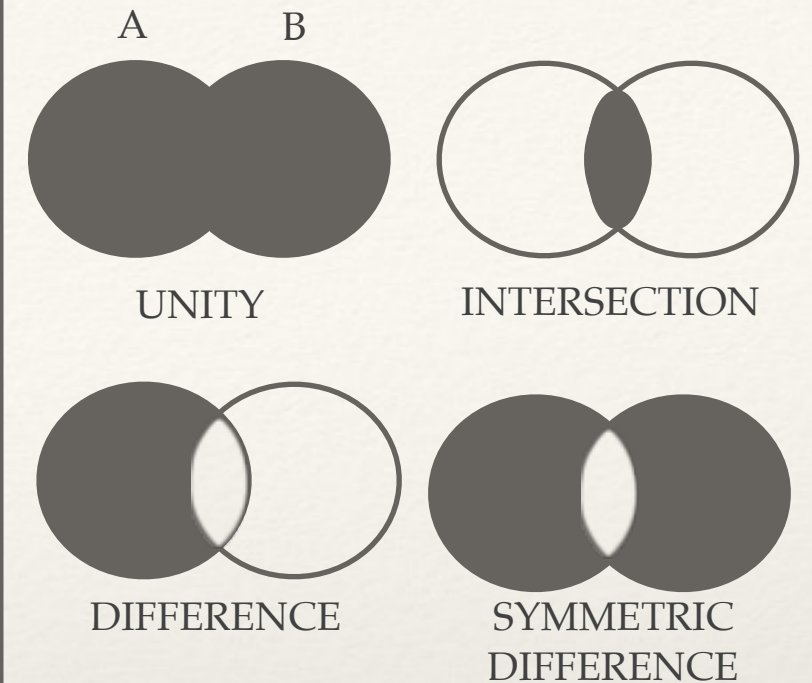
ISOMORPHY



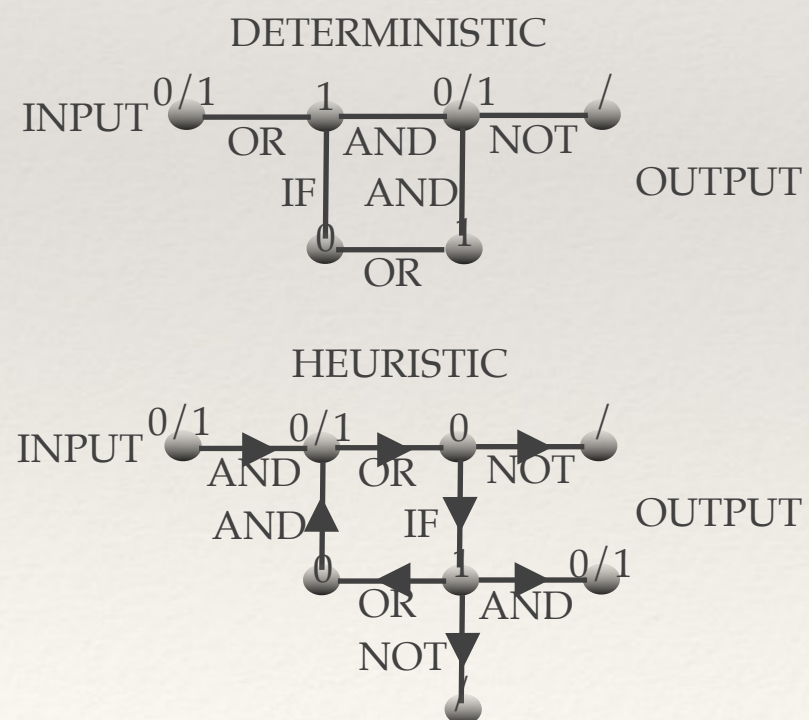
UNITY / DIFFERENCE



SET

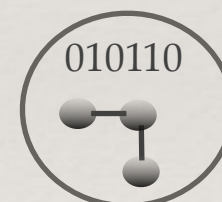
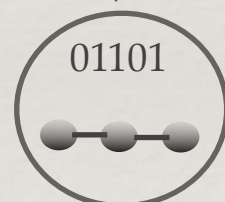


ALGORITHM

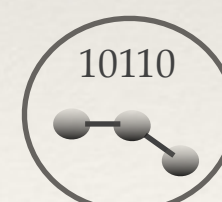
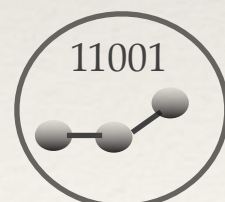


AUTOMATA

RULES/LOGIC

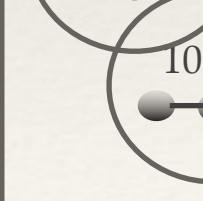
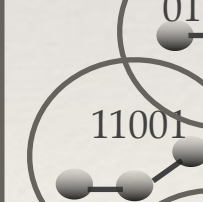
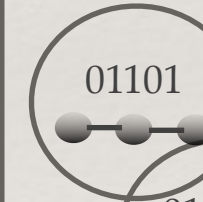


PROCEDURE/EXECUTION



KNOWLEDGE / INFO

KNOWN/ORDER



INFORMATION/CHAOS

