The Evolutionary Framework September 2018

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The Evolutionary Framework

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Definitions

Complete System: A system with all correspondences satisfied and activities complete.
Unbiased System: A system with all kinds of activities balanced and equal.
Original System: A complete unbiased system with 0 delocalization.
Derived System: A system derived by delocalization of the Original System.
Generative Tree and Universal Plot: The reverse tree from input or inputoid variables to outputs is a generative tree or a GenTree. The Plot of sum of all output variables Vs all input variables of an Original System is the Universal Plot (UPlot). There exists a Unique Universal Plot that contains all UPlots.

Axiom 1.1: Interaction Condition: Interaction between entities requires some match in their 'correspondence variables'.

Theorem 1. Intermediate Maxima Theorem: The Input-Output Plots for any and all Input Output Systems are tetra-domic or its honest derivatives - with intermediate maxima in I and II quadrants and intermediate minima in III and IV quadrants and thus intermediate maxima in I quadrant in the Output Vs Input plots with inputs and outputs as sums of absolute values of all quadrant inputs and outputs respectively.
Proof.
For an Original System in each quadrant, completeness implies system space size i.e. dynamical axes size is equal to total input size = (say) n. And unbiasedness implies equality of output positive, neutral and negative equal and equal to n/3 adding up to the complete system size n. The resulting UPlot in the each quadrant would be a dome bordered by the maximal line with its rising and constant and reverting phases corresponding to output positive, neutral and negative inputs respectively. As all realistic and imaginary subsystems of the Original system are its delocalized derivatives, their Original Plot is the tetra-domic UPlot of the Original system and their Actual Plot is UPlots sub-derivative still with intermediate maxima on the x-axis of their Original Plot.

Theorem 2. Connectivity Condition Theorem: Translocation of systems on their UPlots requires match in correspondence variables of themselves and their evolutionary agents for interaction causing motility over the plot.
Proof. Axiom 1.1 directly implies this theorem.

Plain Equality Conjecture:
The pre-system pre-body variable is spontaneously originating unformed, unbiased giving plain equal initiality to all systems- equal origins for all systems, equal initial variation with respect to type and amount, equal activity in type and intensity in all dimensions and kinds. Unbiasedness also shall imply infinite instantaneously born primordial or pre-system pre-body variable. The undefined primordial and pre-mature variables are unstable and are determined parsimoniously.

Theorem 3. Active Dynamics Theorem: On the tetra-dome plots with the given Connectivity Condition, there is certainly motility involving traversions and reversions.
Proof. The Plain equality conjecture suggests presence of variable intensifying - de-intensifying processes (e.g. additive canalization, concentration or their inverses) implying active dynamics over the UPlot.

Theorem 4. All-Maximization Theorem: All the systems and their sub-systems are 'fitness' optimized and equilibrated.

Proof. The Plain Equality Conjecture implies presence of essentially fitter and fittest self and system optimizing attractor-equilibrator activity and its antagonists and fitness neutral activity. Given the universality of 'fitness' selection i.e. the universal selection, this complement of activities leads to absorption into optimized and equilibrated fitness systems and their sub-systems leading to the All-Maximization.

Lemma 5. Finite Time Maximization: This absorption time into the fitness bright hole(s) is finite for all finite systems.
Proof. As the Axiom 1.1 and the exact partionability of contributions (see section below on contribution calculation) suggests, the net 'fitness' is a kind of replication fitness of properties. Thus applying the range of replicator dynamics equations we can show that fitness and abundance difference between evolving species, is at least directly or better related to rate of optimization. Given the infinite fitness-abundance of the conjectured bright-holes, the rate of optimization is infinite for finite system units resulting in finite absorption times. This all-maximization occurring in finite evolutionary time, shall unfold infinitely from infinite instantaneously born primordial variable, as progressively higher systems originate and emerge to fitness-maximize in phases. The net fitness of all finite systems is thus optimized to the intermediate maximal equilibria of fitness in finite evolutionary time.

Lemma 6. Parsimonious Maximization: The maximization is parsimonious.
Proof. As the Plain Equality Conjecture says, the undefinedness of the unstable primordial and pre-mature variables is parsimoniously determined whether randomly or deterministically. This can be birth and development of systems to their evolution and conclusion. Thus, the above all-maximizing bright-hole(s) system with higher fitness-abundance would absorb and optimize the finite and infinite systems universe intensifying unstability driven parsimonious finite and infinite duration determination respectively.

Equivalents (E_q) and Potential (ε)Calculation:
The Plain Equality Conjecture implies equal and infinite, unformed pre-body pre-system resources assigned, called e ,to the origin of any initial atom of a qualitative or quantitative variable. By the known GenTree and known original atomic composition of systems, thus, we could compute the total equivalent of the systems to compare qualitative and/or quantitative systems

$E_q = m * e$ where m is the number of atoms.

Thus, Output Potential ε := Qualitative-Quantitative Outputs variable value/ $input$ $(could\ be\ E_q = m * e)$,
It could be a semi-qualitative variable.

Contribution Calculation:
Contribution by a given variable := $S_f(C^0 + C^+ + C^-)$
i.e.Contribution Selfness Intensity for respective contributions * (Original Contribution Value + Synergistic Intensification + Antagonistic Reductions)

All the above variables are defined over and along the GenTrees and could be fuzzy.
They include operators and variables in the GenTree. Due to steric hindrance while matching between various inputs with outputs to generate them, the C's ($i.e.\ the\ C^0, C^+\ and\ C^-$)and their Sf's ($S_f\ in\ the\ above\ formula$)are exactly partitionable for specific inputs i.e. as natural systems are of dimensions 3 or more (fitness, hierarchy, dry sequence and their integrative differentiation) and the minimally 2 dimensional separate surfaces of inputs in them cannot intersect in another 2 dimensional output atom surface, the output atoms have unique inputs for each surface of interaction and thus can be calculated with the knowledge of the GenTree and compared and computed with their $\boldsymbol{E_q}$'s and the Potentials $\boldsymbol{\varepsilon}$'s, can be calculated.

Definitions of Variables:
The framework being general, can be applied to following important variables.

Convolution C_v= $(|D| - |\neg D|) - (|H| - |\neg H|)$
D ($\neg D$) is the sum of all rates of change or derivatives (non-change or non-derivatives) over system-environment and H ($\neg H$) homology (non-Homology). Their mods represent the sums of mods of rates or homologies.

Quantization-Atomization and Continuity $Q_n = A_t = C_n^{-1} = \Sigma(f \cdot \Delta)$
$f\ is\ the\ frequency\ of\ the\ \Delta\ i.e. non-rate\ changes\ in\ the\ variable(s).$
For qualitative variables changes and changes among the qualitative and quantitative variables, their pre-body pre-system variable equivalents could be used.

Complexity $C_m = C_v$

Modularity $M_d = \Sigma\ interV\ Local\ \ M_d = \Sigma\ interV\ Local\ \ C_v$
i.e. inter-variable local Modularity equal to such convolution.

Stochasticity- Determinism $S_t = D_t^{-1}$= $E_v = C_v^{-1}$
The inverses of variables are denoted as their inverse powers. While
$E_v\ is\ the\ evenness\ of\ the\ distribution.$

Order- Disorder $O_d = {D_{od}}^{-1} = C_v^{-1}\ from\ (genP_t + presP_t)$
$genP_t\ is\ the\ general\ Patternedness\ \ and\ presP_t\ is\ the\ prescribed\ patternedness\ both\ definable\ to\ be\ in$

$[0,1]$.

Robustness $R_b = C_v^{-1}$

Total Information, Size and Activity of System $I_{nf} = S_z = A_{ct} = \sum v$ (i.e. summation of all variables)

Novelty, Non-redundant Information $N_v = C_v$

Internality-Sensitivity I_n, S_n =(system-environment sorted) $\sum v$

EuCeleration $EuC = D\ of\ fitness$.