



Scan to know paper details and author's profile

The Geometric Progression

Dhruba Chakrabarty

ABSTRACT

Society, as a matter of fact has emerged as a structure out of the non linear dynamics of the inherent self generative network of nature. So structurally it is never rigid, neither absolute nor deterministic and all the natural beings on this planet act as a contributor to it. Progress or development therefore can neither be defined through any technological parameter nor can be mechanically imposed in a particular space time continuum. Rather it's the spontaneity inherent in the weave of nature's own network from which matter and life emerges probabilistically with a structural pertinence. This is somewhat like the development of a seed to fruit. But the modern times display a quite poignant picture where the technology of nuclear weapons expel nonviolent fraternal network of societal harmony and the mechanics of the political system is literally subjugating the meaning of humanity. This article has tried a nominal effort to curb the imminent degeneration of the entirety.

Keywords: structures, entirety, nonlinearity, progression, development.

Classification: For Code: 169904

Language: English



London
Journals Press

LJP Copyright ID: 714955

Print ISSN: 2515-5784

Online ISSN: 2515-5792

London Journal of Research in Humanities and Social Sciences

Volume 17 | Issue 3 | Compilation 1.0



The Geometric Progression

Dhruba Chakrabarty

I. ABSTRACT

Society, as a matter of fact has emerged as a structure out of the non linear dynamics of the inherent self generative network of nature. So structurally it is never rigid, neither absolute nor deterministic and all the natural beings on this planet act as a contributor to it. Progress or development therefore can neither be defined through any technological parameter nor can be mechanically imposed in a particular space time continuum. Rather it's the spontaneity inherent in the weave of nature's own network from which matter and life emerges probabilistically with a structural pertinence. This is somewhat like the development of a seed to fruit. But the modern times display a quite poignant picture where the technology of nuclear weapons expel nonviolent fraternal network of societal harmony and the mechanics of the political system is literally subjugating the meaning of humanity. This article has tried a nominal effort to curb the imminent degeneration of the entirety.

Keywords: structures, entirety, nonlinearity, progression, development.

“A human being is a part of a whole, called by us _universe_, a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest... a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.”

– Albert Einstein

II. THE PORTRAIT

Since ages history has portrayed several structures declaring the elegance and ordinance of human civilization spliced with socio-political hegemony. Those structures have enunciated a very deterministic archetype of sustainable civil power and practice. The superpowers like the Egyptian, Roman or Greeks apart from all their disparities are quite similar in such demonstrations of establishing power through gigantically built structures in both visible and invisible formats. Such superiorities always incurred a linear fabrication of facts and figures regarding the acts and achievements of those civilizations. Nonetheless, these documentations and demonstrations have time and again failed to shield the tacit infrastructure of subliminal non linearity which in essence is far dynamic than the visible stability of that structural utopia. Whenever situations have convened the unfoldment of actualities rather than the realities, the entirety of self generating network has always complemented the developmental dynamics. But, the civil practice on the contrary had perpetually objected emerging networks in order to sustain the structural supremacy above all. Therefore, ‘structure’ and ‘structuralism’ has appeared to be self-contradictorily exercised throughout the history of civilization.

Factually what is happening that the ‘structure’, apart from its all innate nonlinearities, is being technically considered to be an entity that peremptorily dictates terms to its immediate environmental inhabitants to generate substantive support in favour of its own sustenance. This technicality commonly named as ‘technology’ slowly but evidently becomes the authority to establish definitive parameters to all the acts and actions through and from that

structure. Thus all such structures ultimately turn into a technological tool that terminates the creative or self-generative eloquence of the structuralism and submits to the materialistic realms of technological ratification. The situation can well be understood by looking at the prevailing academic structure of the modern world.

III. KNOWLEDGE AND THE ACADEMY

Prehistorically knowledge was accessible to all beginning from the unicellular to the multicellular organisms that are to survive and exist on this earth. Clearly speaking, the word knowledge is derived from the verb know which etymologically means to make intercourse with. Since nature's diversities are always ingenious and devoid of any kind of rigid causal linearity, therefore spontaneous intercourse with the natural order was the only accessible path to achieve knowledge irrespective of forms and features. Subsequently the 'structure' grew inwardly to perceive the natural order and outwardly to adapt with the nonlinearity of it. This entire procedure was so innate that the human species or the nonhuman species both enjoyed equal accreditation of their respective surroundings so as to interact harmonically and affably to make this earth a suitable place to live. The age old religious literatures and folk-fables have documented many such indications with quite competent versatility. So it is not at all difficult to realize that knowledge operated through the nonlinearly dynamic network among all the living beings with certain simultaneity. In essence the continuous learning process spread through the multidimensional relational network among all the living beings is the invisible potential out of which 'knowledge' emerges as the visible actuality. But the advent of academy and the academics purposefully impeded this mutual reciprocities and set forth to divide and deduct a definitive approach. The resources remained as it is except a mechanical strainer deployed amidst the rippling stream of learning to provide the desired direction. The self generative properties of the structuralism thus started decaying and the academic structure initiated to

establish authority over the various accessibilities of natural knowledge in order to issue necessary sanctions as per requirements of the masters who were basically the political ruler and the capital. Obviously to accomplish such actions, the academic structure required to be linearly rigid in order to emit prolonged petrification and at the same time to be facultised to subjugate the creative intellectual network as a whole. Therefore, till today academic structure incarnates various systems to select the competent and to eliminate the potentials by simply issuing summons to the human community that the academic instructions and curriculums are the only mode of being civilized. As famous Aristotle had envisaged - educating the mind without educating the heart is no education at all.

IV. THE SYSTEM, THE DEVELOPMENT

Thus the ultimate exaltation of a mechanical system has become the obvious sequel to every structure like the academic one due to the extinction of natural resources and disregard to the inherent self-generative qualities of all living beings. Actually the separation of structure from structuralism is vested in political power spliced with mercantile capital to deliver the parametric system of production of particular components that fits with their sustainability and cognition. That is why modern methodology for medical treatment is being manoeuvred by the highly paid marketing executives of pharmaceutical conglomerates along with the faculty educated medical practitioners commonly known as specialists, the modern academic curriculums are mostly mechanized and taught in such a fashion that preaches the benefits of bringing up only as an able servant of corporate consumerism.

Since the network of nature itself is embedded with the adaptability to any kind of change therefore being a natural subject it is implausible to stick to any form of rigidity that opposes these nonlinear characteristics. Moreover, the dimensionless relational network among the natural beings is woven in such a kind of oneness

that refutes singularity in existence and always proclaims emergence of unprecedented phenomenon as a whole. So life in essence is one but not singular, rather it's a perpetual interaction between all the living components. Even the animal body as is structurally viewed and acclaimed to be steady with statutory actions and activities, is also an outcome of interdisciplinary coordination of numerous types of physical, chemical, psychological and most impressively environmental complexities complementing each other all the time rigorously. The quantum physicists have identified this non-linearity as the invisible potential that according to them causes for the visible actuality of the so called structure. Naturally, systematic view to overpower the systemic configuration of life is consequently devastating. In a word, nothing can be Larger than Life.

But in practice, contempt of the essence of aliveness has molded the structure into a prime proponent of mechanics not of the meaning which subsequently upholds its own supremacy above all and allures the beneficiaries with materialistic efficacy. So, not the value but the price weighs the structure. Therefore, it is not at all difficult to contemplate that the mechanical features embedded within the structure has demarcated and classified life's own network in terms of the provisions it has to deliver. Thus the mechanics has overpowered the meaning of life in a steady space and is acclaimed as one and only irrespective of size and shape of the structure. Whether it is the gothic architectures of 16th century or the dams and barrages of twentieth century or the tiny mobile camera of the twenty-first century, at each and every occasion the mechanics is rampantly ambitious to outcaste and subjugate the oneness of the nature's self-generative network.

The anthropological history of mankind has enough evidence to infer that the human society has evolved out of the vigour of life emanated from the relational network with all the living beings and even with the non-living matters. The

human society is therefore truly a nonlinear dynamic structure that essentially nestles the meaning of nature embellished with probabilistic dexterity. So to direct the society to act in accordance with the statutory parameters of structural mechanics is to disturb and distort the intrinsic alive harmony and as a result the society is thus subjected to extreme stress. Obviously then the emergence of dehumanizing vices as a balancing factor from within the society becomes evident. In this regard it is also to contemplate that the innate components of any structure generates a certain holistic system of their own to comply with the immediate environment outside the structural periphery, any foreign imposition of supremacy is therefore always resisted with a disastrous consequence.

But to disprove and disintegrate the oneness and inherent complementarities of the natural beings has become the prime feature of the so called progress of civilization throughout the past few centuries. The latest of those is the massive implementation of technology in agriculture and animal husbandry. Setting aside the natural ability of the farmers to extract fertility out of the soil, use of genetically modified crops and animal feeds are being promoted worldwide in order to guarantee supply of food for mankind. On the other hand the environmentalists and the molecular biologists have adequate amount of documentary evidence that these mechanical interference is no less destructive for existence of the living beings than the nuclear war. A very poignant example is, man's so far closest purely vegetarian cattle are being turned into cannibals with high animal protein diets to effectuate more production of milk and meat. The crops and vegetables grown from insecticide resistant seeds are not only a detriment to human health but also a serious threat to the future of life on this planet due to the impairment of soil's inherent ecosystem. Moreover, when such mechanical impositions are overtly enthusiastic to declare themselves as substantially equivalent to the natural order, it is not at all difficult to

comprehend that the harmonic oneness of the entirety is being challenged every time.

V. DEFINITE TODAY OF INDEFINITE TOMORROWS

Despite respected Albert Einstein's forewarning - "Technological progress is like an axe in the hands of a pathological criminal", the progresses and 'developments' of human civilization have mostly been acclaimed through so called technological advancements throughout the globe with an overall supremacy. But the complex dynamics of life in fact is too vast to be accessed with the help of such ephemerals. Therefore the risk of adopting such technical systematic views of life is not only remaining but also being aggravated day by day. The reason behind is presumably that these faculties lack the requisite acuity to comprehend the systemic properties of the biological and ecological oneness and consequently a confused state about the present and the past is endemic within such system. As a matter of fact, the word technology emerged in the later part of 18th century A.D in England in the propinquity of 'Industrial Revolution'.

This confusion between time and space is on the other hand being capitalized by commercial entrepreneurs who are quite competent to make it more alluring in favor of their respective brand values. Technologically astounding advertisements perpetually provoke the readers/viewers to consume the most modern products without being concerned about the possibilities of being that much vulnerable to restrict one's own instincts. So ultimately, insecurity begets money - is becoming the hidden commercial motive to promote developments. All the present day machines appear in a 'larger than life' stance as they claim to be quite capable of generating solutions of any kind to the everyday crisis of an individual. So both the crisis and the solutions there of are manufactured technologically just to achieve commercial gain. Consequently the society which is actually based on holistic concept interspersed with a self generative network is gradually befitting to individuals' interests. Such a

divergence spreads like a lethal disease in all aspects of life for which the affected ones have left with no other option but to rely upon another mechanical system causing another fragmentation and so on.

The tacitly held nature within the body and the explicit exterior nature are complementary to each other. Both the factors act in tandem to maintain the intricate weave of the entire universe. Please consider the word 'universe', it's nothing but a unified verse with a limitless subliminal harmony. So when the exterior nature is exploited and distorted to establish and adopt any kind of mechanical system, the whole-some function disintegrates but to restore equilibrium as per the law of conservation it again reconstructs within itself naturally. We fail to follow this natural order of simultaneity and challenge it with our fragmented academic knowledge. Consequence, we all face, we call cancer a 'deformation' and abstain to accept it as 'reformation' within.

Actually the basic incongruity lies in the effort to consider the 'part' as the 'whole'. It is quite impossible to measure the depth of the pacific with a six inches scale provided with the school geometry box. Whatever be the length of a line, more and more points lies outside, and this notion is true for a plane or any three dimensional solid. But it is our common practice to evaluate the surroundings with some fixed linear parameters and to act in accordance with our 'acquires' and 'acquisitions' remain ever limited. Eventually when by some definite intention the parameters alter, the entire paradigm is being shifted leaving us in complete disarray.

Let us look into the context through a mathematical viewpoint. We all deal with numbers, we all are quite informed about the behaviours and uses of numbers, but we do not really know what a number is. We merely see it symbolically on the screens or papers and deal with the numbers on some operational basis. So like all other symbols, we are to realize also the

significance of those numerical operations not only at the surface level but also in the subliminal depth with a holistic view.

VI. THE MATHEMATICAL ESSENCE

Let us take an infinite geometric progression (GP series):-

$a, ar, ar^2, ar^3, ar^4, \dots$ where 'a' is the first term and 'r' is the common ratio of progression.

As we are all aware that the sum total of such a series i.e. the ultimate amount of progress made in this fashion is. Such a result quite clearly indicates that the ratio of progression (r) is to be less than unity otherwise the sum total of the entire operation ultimately yields a negative result i.e. divergence. This mathematical conclusion implies that any such progressive action to surpass or circumvent the natural order of oneness essentially causes deterioration and the deterioration caused by disregarding the oneness will certainly increase the entire system entropy and effectuate devastation through structural annihilations. The natural reason behind such an occurrence is that the initial entity being an indivisible part of nature's cohesive network the effort of developing or making progress of the same is always subjugated to the endorsement of that oneness and therefore cannot exceed that.

Now, considering the common ratio of progression less than one ($r = 1/3$ as an example), the above series takes the form $a, a/3, a/9, a/27, a/81, a/243, \dots$ and the subsequent sum of the series is $= a(1-1/3) = 3a/2$.

Dear reader, now your kind attention is hereby invited to the most significant feature of such geometrically progressed series; the terms of the series are factually the factors of the initial entity (a) in a gradually decreasing order and it is quite obvious to attain even the infinitesimally smallest value at any particular stage. The gradual steps of this geometrical progress are therefore actually

the declination/differentiation of the initial. But the widely acclaimed and believed notion about progress is in quite contravention to the above mathematical experience. The history of mankind has all the time peremptorily demanded that the route towards civilization as paved with conceptually much better and larger steps and the popular mechanical systems have always asserted the present as grown healthier than the past. Such fabricated theorization has indoctrinated generations after generations to place the mechanics as much superior to the meaning and quite convincingly to abandon the origin as primitive and undeveloped. But an in-vivo contemplation of the geometric series leads us to another astounding realization that the development actually lies in the summation of those differentials, in the instant case it is $(3a/2) > a$. So to contemplate progress, even the infinitesimally small part (differential) is to be cohered to attain the dimension of wholeness. To fetter the rights and entity of any component in order to perform the rituals of progress is in essence a destructive stance that ultimately demonizes the entire progressive functionality. The progressed modernity therefore owes its developing potential to the predecessors both qualitatively and quantitatively. In another word, the present is a probabilistic attribute embedded or enfolded inherently within the past that unfolds itself through the holistic integration of the intrinsic intricacies of the past. As respected Ilya Prigogine, Nobel Laureate in Chemistry 1977 has opined in his book 'IS FUTURE GIVEN?' that: - essentially this is a characteristic feature of nature, individualities emerge from the global. A town emerges from the countryside, in which it is embedded. That is why the common ratio can never be greater than one, the development or progress in essence is a holistic contemplation and can never be considered to be an exclusive mechanical entity, all the inherent integral factors of the present and the past conduct and condition progress formatively.

Another mathematical event of CALCULUS bears a lot of relevance to the above context.

Differentiating the continuous function of variable x i.e. $f(x) = x^2$, we get, $df(x)/dx = 2x$. But integrating $2x$ with respect to the variable x we get, $\int 2x dx = x^2 + c$. The significance of emergence of the constant 'C' ratify the fact that the development of the function $f(x)$ from its initial form x^2 to $(x^2 + c)$ is caused after integrating the differentials ($2x dx$) of the original function and truly this characteristic feature is the inherently embedded probabilities that has been unfolded in course of this holistic integration.

This is to infer therefore that progress or development can neither be defined through any technological parameter nor can be mechanically imposed in a particular space time continuum. Rather it's the spontaneity inherent in the weave of nature's own network from which matter and life emerges probabilistically with a structural pertinence. The entirety itself nestles change through differentiation and integration in simultaneity to sustain the eternal equilibrium. But the modern times display a quite poignant picture where the technology of nuclear weapons expel nonviolent fraternal network of global harmony and the mechanics of the political system is literally subjugating the meaning of humanity.

Dear reader, the rest is upon your conscience to curb the imminence of implicit degeneration.

REFERENCES

1. Guns, germs and steel by Jared Diamond, (W. W. Norton March 1997).
2. The hidden connections by Fritjof Capra (Doubleday August 2002).
3. Ideas and Opinions by Albert Einstein.
4. The rise of network society by Manuel Castells (Wiley-Blackwell 2010).