

Perception of nature, culture and production mode

The Modalities of Modern Production are Informed by an Obsolete Mechanical Model of the Universe Based on 17th Century Science

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Individual and social behavior is molded according to the perception of nature that is dominant in each generation. That perception is all-important therefore. It defines the "culture" that is the equivalent of genetic encoding in the lower organisms. But this is "ektogenetic" encoding - outside and not within the human organism.

If preponderant human behavior over the centuries has evolved intolerable conditions, we must seek the cause precisely in the perception - the worldview - that created the configuration of this whole ektogenetic code.

What perception created these intolerable crises? The perspective launched by the delivery of a paper before the Royal Academy Society of London on April 28, 1686 by a Cambridge scientist named Isaac Newton transformed from then on the way man viewed nature. Up to then nature was a living organism; after then, nature was a machine that was fully explained by a study of its parts. Science then divided up itself into specializations to study each class of "parts".

The modalities of modern production are informed by a worldview based on 17th century science and a mechanical model of the universe. Under this view, nature is to be refashioned to serve man's purposes - it is an unlimited source of raw materials for his needs and a bottomless sink for his wastes.

The world of Newton and Darwin was an atomistic world where every man was destined to seek his individual fortune and happiness in a competitive arena where the fittest thrived. The earth belonged to the imaginative and the powerful who took aggressive initiatives to satisfy not merely their need but also their greed.

Even as Newtonian and Darwinian classical economics passed from theory to ideology and belief system to ruling strategy and policy worldwide, Newtonian physics and Darwinian biology were fundamentally modified by subsequent scientific revolutions in both physics and biology.

Atomistic and mechanical analogues and reductionist analyses were replaced by holistic and systems thinking and biological and anthropic models. The direction of causation was no longer viewed to run upwards from elementary particles to complex systems. But downwards from complex systems which were the teleological goals of evolution to more simple elements. Evolution was not a push from below by matter but a pull from above by spirit. Purpose and teleology had to be brought back to scientific explanations. Morphic fields had to be hypothesized to explain the upward jump of simpler to more complex systems.

The new paradigms dictated radically different perspectives - new ways of viewing matter, life, consciousness and spirit. Evolution was a process managed by a conscious mind. Creation was a continuing and a managed process. Nature revealed a consistent "management" style: that maximized individuality and potency in the unit elements, not deterministic but permissive of wide degrees of freedom for the elements to seek union with others to form systems of ever higher degrees of complexity; subsidiarity that allowed each lower order to exercise maximum capabilities consistent with its level of organization -- from quarks to neutrinos to protons and electrons, to

atoms and molecules and compounds and crystals and mega-molecules to cells, and organisms and plants and animals, and mammals and man and societies, and world orders.

But the appropriate homologue for understanding each order was not the lower but the higher. This meant that the evolution and growth of society could be better understood not as a process that was being pushed from below but as one that was being pulled from above. The higher order acted as a force field guiding the formation of the lower orders and helping them leap to higher levels of complexity and organization.

These developments in science carry profound implications for understanding the process of growth and designing operational strategies for sustainability. Non-rational organisms adjust their individual and "social" behavior to their environment by a combination of instinct genetically encoded and habituation formed within the limits of consciousness appropriate for each species.

If this perception created a culture that bred dysfunctional - or pathological - growth, what perception would encode sustainability? The biological homologue gives us a more operational definition of sustainable growth. It is simply growth that is symbiotic with the planetary environment and the planetary community: mutual growth.

The concept of ektogenetic encoding becomes quite operational. It provides an insight into why eighteenth century "atomistic individualism" bred pathological growth. It identified entrepreneurship with autistic, self-centered growth. It bred cancer cells and then made the quantitative growth of these cells the measure of economic progress.

Key words

[cultural dimension of development](#)

, [Philippines](#)

Notes

Extract of the Preparatory Document N° 100 for the Assembly of the Alliance for a Unite and Responsible World, in 1997. Sixto Rochas : Development pathology : lessons from the Philippines. You can command the document : FPH, 38 rue Saint Sabin, F- 75011 Paris, tel/fax + 33 1 48 06 58 86

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(France); One of the most intriguing hypotheses in the new biology is Sheldrake's "morphic field". See Rupert Sheldrake, The Presence of the Past: Morphic Resonance and the Habits of Nature, New York, Vintage Books, 1989



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