

Parallels between Biology & Social Development

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Theme of the General Assembly

- Relationship between humanity, the physical environment and biosphere

Requires a knowledge of

- **Physical processes** influencing relationships & interdependences within and between species
- **Biological processes** governing interactions between living species and their environment
- Principles governing the dynamics and balancing of **ecosystems**
- Principles governing the **evolution of individual species**
- Processes governing the **interactions between humanity, the physical environment & the biosphere**
- Processes governing the **human ecosystem** which interacts with the physical and biological ecosystem of earth
- Processes governing **social interactions** between human beings within the human ecosystem

Human ecosystem consists of

- The individual members of our species
- The social collectives, systems and organizations through which it operates
- Common laws or principles governing the growth, development and evolution of society in all fields

Hypothesis

- Similar principles are valid in biology and society
- These principles are applicable to all fields of life and all the social sciences
- The same principles are applicable to
 - Individual
 - Organizations
 - Societies

Energy

Biological Food Chain

- Ecology describes the cyclic processes known as the food chain by which
 - Inorganic energy is absorbed by lower life forms
 - Serves as fuel for the survival, growth and development of higher order organisms
 - Recycles as nutrients
- Surplus of energy in organic form is the essential basis for growth and flourishing of life.

Social Energy

- Growth and development of human society is also governed by energy cycles
- Accumulation of surplus social energy is the fuel for new patterns of behavior and higher order social formations

Social energy expresses in

- **Olympics:** Mass enthusiasm over Olympics
- **Markets:** fervor of competition
- **Urban Intensity:** New York City
- **Financial panics:** Crisis becomes an epidemic
- **Elections:** contention of political parties
- **Social Networking:** MySpace, Facebook, etc.
- **Terrorism:** fear & outrage at a bomb blast
- **Fashion:** craving for the latest fashion
- **War:** Massive mobilizations for war

Energy Conservation vs. Creation

- Physical Energy
 - Biological systems appear to be wholly dependent on physical sources of energy which are finite and fixed in quantity.
- Social Energy
 - Energy that governs the development of the collective is psychological energy.
 - Expression of individual & collective psychology.
 - Generated by the mind—by ideas, aspirations, ideals, values, attitudes, emotion and desire
 - Released by imitation & contagion, endorsed & multiplied by society

Evolution vs. Entropy

- Evolution of the universe created material forms
 - Energy \Rightarrow Elements & Molecules
- Physical ecosystem is slowly running down hill
 - Matter \Rightarrow Energy
- Biological systems continuously evolve
 - Organic Energy \Rightarrow Biological Forms
- Social ecosystem is constantly rising in energy as
 - Social Energy \Rightarrow Social forms (organization)
 - Population – from 10M to 7B in 10,000 years
 - Communication & transportation
 - Higher levels of education release energy

Limits to social energy?

- No reason or evidence of limits.
- Mind, imagination and creativity are not subject to limits.
- It rises in on a logarithmic scale from Inertia & unconsciousness \Rightarrow dynamic enthusiasm & expanding consciousness.

Individual & Organization

Role of the Individual

- Neo-Darwinism
 - Mutation \Rightarrow new characteristics with adaptive advantage in individual member of the species.
 - Replication of characteristics \Rightarrow evolution of the species
- Role of Pioneers in Social Development
 - Individual represents the collective, acts on its strength
 - Individual \Rightarrow conscious modifications \Rightarrow new behavior
 - Collective adopts \Rightarrow replicates \Rightarrow organizes \Rightarrow new patterns in the society as a whole.

Destiny of the individual

- What does this tell us about the direction and process of social evolution?
- In biology, the individual is an unconscious medium for genetic transmission
- In society the individual has the potential to consciously evolve new characteristics
- One implication -- speed of social development is not limited to generational mutations.

Organization in Nature

- Biological form is an organization
 - Evolution \Rightarrow more complex, adaptive forms
- Environment (Nature) as a whole is an organization = web of life
 - Organization of interdependent species and processes determines the behavior of individual life forms & species within the wider environment.

Human Organization

- Human society = web of relationships
- Multidimensional organization of human beings and human activities that determines the behavior and development of individuals and subgroups within the social collective.
- Organization harnesses the available energy and converts it into higher order results.
- Development is largely a result of the progressive release of greater amounts of energy and their increasing organization.

Social Organizations

- Language
- Military
- Government
- Transportation
- Law
- Markets
- Money
- Communication & Media
- Education
- Internet

Evolution

Evolution of Species

- Species evolve, not individuals
- Species = biological organization of the collective
- As they evolve, behavior changes
e.g. reproduction, food fathering, rearing off-spring

Evolution of Human Collectives

- Evolution of larger social units plays a crucial part in the evolution of human society
 - Family
 - city-states
 - feudal kingdoms
 - nations
- Modern society provides the individual human being with the freedom, capacity & support to fully develop and achieve

Survival vs. Evolution

- Balance & harmony are fundamental principles of both physical & human ecology.
- Nature evolves through a balanced development of complementary & interdependent aspects.
- Sudden intrusion of excess energy or activity can disrupt the balance.
- Nature's first impulse is to maintain and restore that balance wherever it is disturbed.

Development is disruptive

- Human society is governed by a similar conservative principle.
- Development disturbs the balance, disturbs the existing organization & gives rise to new organization
- Development involves a disruption of the existing social harmony and the formation of a new pattern to replace that which has been broken.

Human Ecology vs. Development

- Human Ecology studies conservative tendencies in human society.
- Development theory examines the processes by which it evolves.

Global financial crisis

- Result of imbalances arising from unregulated speculation
- Result of a conscious dismantling of the national regulatory mechanism that separated commercial and investment banking.
- The solution is the evolution of a global monetary organization.

Consciousness

Biological evolution

- Physical ecosystems are unconscious and incapable of volition
- Governed by instinctive (subconscious) responses of life to adaptive challenges

Human evolution

- By trial & error (subconscious)
- Can become conscious
- Conscious = Awareness +
Knowledge of the process

Conscious Development

- In formulating strategies to restore balance and harmony between the human and physical ecosystems
 - Conscious human awareness
 - Knowledge of the processes by which humanity converts conscious intention into new adaptive behaviors
 - Translation of knowledge into Organization

Malthus vs. Green Revolution

- The difference between subconscious and conscious development is the difference between Malthus and Green Revolution.
- Malthus focused on limited productivity of land
- Green Revolution focuses on the man, the farmer, rather than land, raising his productivity.
- It was not technology that did it, but consciousness and organization.

EU as conscious social evolution

- For 1000 years, Europe was the hotbed of continuous warfare between nations.
- Since 1950 it is most peaceful region where war has become unthinkable.
- Conscious effort to overcome the limitations of the nation-state system to evolve a supranational system of governance.

Questions

- What is the ultimate solution to the issue of climate change?
- What is the chief obstacle to global action on the issue of climate change?
- How can we spur social evolution from physical unconsciousness and vital self-centeredness to rational & effective mental initiative?
- What role can organizations like WAAS play?

Theory of Problems

How and why human beings create & solve problems

- Development theory should lead us to understand the process by which human beings create and overcome problems.

Root Cause of Climate Change

- The root cause for Global Warming is not CO₂. It is human beings.
- The remedy is not controlling emission of green house gases.
- Even if per capita generation were radically reduced, the overall increase arising from development of India and China will dwarf current levels.

Remedy for Climate Change

- Shift the focal point of development from the physical to the mental level.
- Technology is one expression
- Public awareness is a means
- Education fosters our evolution as mental beings

Ecological crisis spurs growth of human consciousness

- The current ecological crisis comes to help awaken us, to make humanity more conscious, and compel us to evolve a more effective global social organization to share our common resources & address our common concerns.