

Ecological Models of Social Organization: A Baha'i Perspective

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ABSTRACT: Natural ecosystems share many features with human social systems in terms of their evolutionary origin, dynamic complexity, and control mechanisms. This paper reviews parallels between the organizational characteristics of natural and social systems that could be a model for the 21st century.

Ecosystems and human social systems

Human beings are complex creatures with a bewildering variety of social organizations, making it difficult to determine any pattern, structure or controlling mechanism, and particularly to design or consciously evolve more functional or appropriate social systems. Even a concept such as democracy can cover many different forms of social and governmental behaviour.

Yet the natural world provides parallels for human systems, in particular in those complex ecosystems that have evolved over millions of years to achieve high levels of diversity, integration and productivity, characteristics which would also be desirable in human systems.

The coral reef ecosystem, for example, is well known for the complex relationships that permit it to achieve high productivity and efficiency in a resource-poor environment. These can be illustrated by the algal symbionts in coral polyps, giant clams and other animals, and by behavioral symbioses such as those between clown fish and anemones, or cleaner fish and large predators. The reef has well developed structures and mechanisms to capture and use the maximum solar energy, and to trap and recycle scarce nutrients. The efficiency of the reef system can be ascribed to the high levels of integration, communication and interaction among the component parts, which make for a very dynamic and adaptable system. Yet on a coral reef there is no central controlling mechanism. The entire system has evolved and operates on the basis of structures and patterns of behaviour coded in the genetic instructions of individual organisms which make up the various species on the reef. Since there is not much evidence of learned behaviour in reef organisms, it can be assumed that the rules of behaviour and the defining characteristics for interactions are based either on such genetic instructions or on the inherent characteristics of interacting physical, chemical and biological systems and external driving forces. All the creativity involved in changes and improvements in the system likewise comes from mutations and adaptations in individual genomes, which in turn create the potential for adaptive evolutionary responses on the part of other organisms.

Just as the system evolves through creativity at the individual level, so do the complex interactions that make the system operate function largely through physical or chemical links or exchanges of information between individuals at the local level. The coral reef ecosystem operates not according to some central master plan, but through complex and interlinked networks largely at the local level, although some elements such as species migrations and larval dispersal operate at larger spacial and temporal scales. It is interesting that the most recent evolution in computing technology to increase power and capacity is away from massive main-frame super computers towards interacting decentralized networks of smaller processors.

Information content of systems

Any functional system, which we might call an eco (from the Greek oikos: house or place) has certain fundamental characteristics, including a given composition or capital of resources, some inputs and outputs according to the function which must essentially be in balance, and a through flow of energy to power the system. However the real importance or wealth of any such system is not in its content of materials but in the way that they are organized, what might be called their information content and the processes of information exchange within the system and with the outside environment including other functional systems. The real success of such systems is that they can use the energy flowing through them to increase their information content and connectivity. Since there are increasing physical limitations to many forms of communications with distance, functional systems tend to subdivide into nested series of subsystems, benefiting from optimal operational scales while reducing the amount of information communicated at larger scales to the minimum necessary for effective coordination. These same principles apply whether the functional system is an organism, and ecosystem, a village, a corporation or a nation state.

At the human level, we already have large numbers of extremely powerful information processors, if one could so define each human being. What we need to get right are the rules for their interaction and the structures within which they should operate. If the rules specify that each one should carry the most powerful weapon available and should organize hierarchically in order to follow the leader in his quest for power, the result will be warfare. However, this is not a process that improves social efficiency or quality of life. At the level of human social organization, it is not genetically programmed instincts that are the dominant information store, but our heritage of culture, science, law and institutions. In particular, the basic rules of human interaction are generally derived from values or morals, which have most commonly and durably been defined by religion, often in interaction with other elements of a culture or political system. Human values are thus the social equivalent of genetic instructions or computer programmes, with the great difference that they are (or at least can be) under conscious control.

Human social systems

It should be clear from the above analysis of natural systems that more advanced forms of human organization should be characterized by decentralized, highly diversified subsystems with widespread participation at the individual level. These are in fact the characteristics often sought in democratic systems, whose strength is often seen to lie in the creativity, innovation and participation of individuals. The convergence of ecology and democracy is thus particularly clear.

What we need are values that encourage the kinds of social organization that will incorporate the best features of the coral reef and other highly evolved functional systems, features that have proven themselves over millions of years of successful evolution. The Bahá'í community offers an example of what such a system might be like, and it is already operating globally on a pilot scale.

The Bahá'í pattern of organization is rooted in the local community, where every individual can participate in regular community meetings and elections. All administration and decision-making is conducted by elected bodies of 9 members, whose authority and responsibility is collective and not individual. Elections are by secret ballot from the entire membership without nominations or campaigning, so that those who have demonstrated through their acts that they have the necessary qualities are favoured. Those elected have an obligation to the community to serve. Diversity in these institutions is so desirable that, in the case of a tie vote, the person representing a minority is automatically selected. In this system, no individual holds any position of power or authority; this is vested only in the elected institutions. Once elected, members are responsible only to their own conscience and to God, not to their electorate, which frees them from the pressures common in many present democratic systems. Decisions are taken after full and frank consultation in a search for the

solution best encompassing all the diversity of the community, either by consensus, or if necessary by majority vote. Appeals from decisions at a lower level to a higher level are always possible. Elections are annual at the local and national levels, and every five years at present at the international level. National and international elections are in stages, with the individuals in a local community or region electing delegates who in turn elect the national body, and the members of the national bodies serving as delegates for the election of the international body. The function of charismatic leadership is separated from the political or administrative functions and transferred to a parallel set of appointed institutions composed of individuals selected for their personal qualities, wisdom and experience, but whose function is only to advise and encourage, not to decide, and whose only leadership role is in implementing the decisions of the administrative bodies. The system thus provides a series of checks and balances designed to draw on the strengths of the whole community and to reduce or eliminate the weaknesses of most democratic systems of today.

The root of the Bahá'í system and the most essential factor in its success is the underlying set of common values and spiritual principles that unite all of its members, based on the teachings of Bahá'u'lláh (1817-1892). These principles revolve around the oneness of humankind, and emphasize justice and service to the whole human race. It is these values which are at least implicit in previous religions, but which in their modern form can be compared to advantageous genetic mutations, favouring the superior social adaptability and fitness of those who possess them.

This pattern of social organization already functions in a global network which makes the Bahá'í Faith the second most widespread religion today after Christianity. It is highly decentralized and adapted to the many cultures, nations and peoples of the world, yet linking them into a global system that corresponds to the increasing levels of international economic, social and cultural exchange. It is fundamentally organic and evolutionary in operation, building on the strengths of democratic systems while compensating for their most common flaws. Its strong resemblance to natural systems suggests its adaptability to the kind of decentralized multi-level structure needed for an evolving world society, and capable of balancing human pressures and environmental requirements for sustainable development.

The need for such a system of social organization is demonstrated by two of the critical challenges facing today's world: the rise of ethnic/cultural/religious violence, and the rapid deterioration of the global environment. The former can only be resolved through a change in values to prefer those factors that unite us over those that divide us, eliminating the political manipulation of differences for personal power or partisan ends, together with community mechanisms that foster mutual understanding and a just resolution of problems. The latter requires a global perspective and sense of responsibility, based on values that will motivate the personal and group sacrifices necessary to eliminate the present extremes of wealth and poverty in the world, reducing the excessive consumption of the West and raising the resource-destroying poverty of the third world to an economic level in keeping with both human dignity and environmental sustainability. Both require processes of extensive consultation in a spirit of good will founded on justice and equity for all people, and therefore need social mechanisms that will foster such processes at all levels.

It is not possible to define now a detailed plan for future society. That is not the organic, natural way. What we can do is to improve the rules of human relations so that they encourage interaction, exchange of information and experience, and the accumulation of knowledge and wisdom, the real wealth of society. If we get the essential framework right, we can grow out of this awkward transitional period and lay solid ecological and democratic foundations for an ever-advancing world civilization.