Organizational Ecology: The Creation of Shared Futures

The population-ecology and contingency views of organization both view organizations as existing in a state of tension or struggle with their environments. Both presume that organizations and environments are separate phenomena. Under the influence of developments in modern systems theory, however, this kind of assumption has attracted increasing criticism. Organizations, like organisms, are not really discrete entities, even though it may be convenient to think of them as such. They do not live in isolation and are not self-sufficient. Rather, they exist as elements in a complex ecosystem.

Many biologists now believe that it is the whole ecosystem that evolves and that the process of evolution can really be understood only at the level of the total ecology. This has important implications because it suggests that organisms do not evolve by adapting to environmental changes or as a result of these changes selecting the organisms that are to survive. Rather, it suggests that evolution is always evolution of a pattern of

relations embracing organisms *and* their environments. It is the *pattern*, not just the separate units composing this pattern, that evolves. Or as Kenneth Boulding has put it, evolution involves the "survival of the fitting," not just the survival of the fittest.

When we attempt to understand the ecology of organizations with this perspective in mind, it becomes necessary to understand that organizations and their environments are engaged in a pattern of co-creation, where each produces the other. Just as in nature, where the environment of an organism is composed of other organisms, organizational environments are in large measure composed of other organizations. Once we recognize this, it becomes clear that organizations are, in principle, able to influence the nature of their environment. They can play an active role in shaping their future, especially when acting in concert with other organizations. Environments then become in some measure always negotiated environments rather than independent external forces.

If we look at the organizational world, we find that, as in nature, collaboration is often as common as competition. Organizations in the same industry frequently get together under the umbrella of trade and professional associations to collaborate in relation to shared interests. Formal and informal cartels for price fixing, agreements regarding areas of competition and market sharing, and the joint sponsorship of lobbies designed to influence government legislation are obvious examples. The Tobacco Trust, which was established by leading U.S. tobacco companies to help shape research on the link between cancer and smoking, presents a particularly striking example of cooperation between firms that are normally engaged in fierce competition.

Examples of day-to-day collaborative relations between organizations in different industries or in different parts of the same industry are also very common. For example, firms often cultivate interlocking directorships to create a measure of shared decision making and control, engage in joint ventures to pool expertise or share risk in research and development, strike agreements with suppliers or manufacturers to achieve a measure of "vertical integration" of production, and engage in numerous kinds of informal networking. They also sometimes establish informal joint organizations to link firms that have an interest in special problems or lines of development. For example, in the financial services industry it is not uncommon for banks, trust companies, insurance firms, and other interested agencies to offer joint services, in effect creating a new form of organization at the level of the industry. Similar developments can be seen in many other areas as well.

An ecological perspective that emphasizes the importance of collaboration can make an important contribution to how we understand and

manage the world of organizations. Under the influence of interpretations of evolution that emphasize the survival of the fittest, competition is often encouraged as the basic rule of organizational life. Under the influence of more ecological interpretations stressing the "survival of the fitting," the ethic of collaboration receives much more attention.

A number of social scientists inspired by the work of the late Eric Trist have now begun to develop this view of organizational ecology, investigating the possibility of developing new patterns of interorganizational relations that can help shape the future in a proactive way. Building on the observation that these relations emerge as a natural response to complexity and turbulence in the environment, Trist argued that they should be encouraged to help make the turbulence more manageable. In several "action projects," he and his colleagues sought to develop "referent organizations" to regulate relations between stakeholders in broad-based "domains." The idea of such domain-based organizations is to embrace the organization-environment relations of a whole set of constituent organizations so that what were once external relations—for example, between competing or interdependent firms or between labor and management—now in some measure become internal relations that are open to collaborative action. The approach has been applied in a wide variety of settings to tackle problems of environmental pollution, regional and community economic development, and the development of industrial associations. Trist and his colleagues also encourage the development of informal learning networks that can generate domain-based exchange and discussion, promote shared appreciations of concerns and problems, facilitate the emergence of common values and norms, and thus possibly find new solutions to shared problems.

The concern in both cases is to allow the ecology of organizational relations to evolve and survive. Just as natural ecologists are concerned about the disastrous effects of industrial pollution on the natural world, Trist and his successors believe that our organizational ecology is menaced by highly individualistic lines of action that threaten to make the social world completely unmanageable. The concept of organizational ecology is thus marshaled as a new and creative way of thinking and acting in relation to these problems.

Strengths and Limitations of the Organismic Metaphor

We began this chapter with the invitation to view organizations as organisms and have ended up with a review of

some of the central ideas of modern organization theory. This is because most modern organization theorists have looked to nature to understand organizations and organizational life. The ideas identified provide an excellent illustration of how a metaphor can open our minds to a systematic and novel way of thinking. By exploring the parallels between organisms and organizations in terms of organic functioning, relations with the environment, relations between species, and the wider ecology, it has been possible to produce different theories and explanations that have very practical implications for organization and management.

Given the rich and varied insights thus generated, it is difficult to identify strengths and limitations that apply equally to all variations of the metaphor. However, there are a number of important commonalities.

One of the main strengths of the metaphor stems from the emphasis placed on understanding relations between organizations and their environments. The mechanical theories explored in Chapter 2 more or less ignored the role of the environment, treating organizations as relatively closed systems that could be designed as clearly defined structures of parts. In contrast, the ideas considered in this chapter stress that organizations are open systems and are best understood as ongoing *processes* rather than as collections of parts. Using the image of an organism in constant exchange with the environment, we are encouraged to take an open and flexible view of organization. We can recognize that so long as key processes are functioning in an effective manner, everything may be going well.

This leads us to the second strength of the metaphor: The management of organizations can often be improved through systematic attention to the "needs" that must be satisfied if the organization is to survive. The metaphor emphasizes survival as the key aim or primary task facing any organization. This contrasts with the classical focus on specific operational goals. Survival is a process, whereas goals are often targets or end points to be achieved. This reorientation gives management an increased flexibility, for if survival is seen as the primary orientation, specific goals are framed by a more basic and enduring process that helps prevent them from becoming ends in themselves, a common fate in many organizations. The focus on the use and acquisition of resources also helps emphasize that the process of organizing is much broader and more basic than the task of achieving specific goals.

The focus on "needs" also encourages us to see organizations as interacting processes that have to be balanced internally as well as in relation to the environment. Thus, we see strategy, structure, technology, and the human and managerial dimensions of organization as subsystems with living needs that must be satisfied in a mutually acceptable way.

Otherwise, the openness and health of the overall system suffer. Imagine a socio-technical system where human needs characteristic of the higher reaches of Maslow's need hierarchy meet a technology characterized by routine, boring, low-discretion jobs. The result is one of human boredom and alienation where game playing and sabotage often emerge as means of gaining self-respect. The abrasive interaction between subsystems in this case is likely to produce an ongoing battle between workers and management, high absenteeism, job turnover when new jobs are freely available, poor-quality products, and low organizational self-image. The socio-technical approach suggests that, by accommodating and balancing basic needs, strategic management can create a much more harmonious and productive work environment.

The third principal advantage of the metaphor is that in identifying different "species" of organization we are alerted to the fact that in organizing we always have a range of options. The ideas relating to matrix and other team-based and organic forms of organization and the research showing how effective organization is contingent on environmental circumstances emphasize that managers and those involved in organization design always have choice and that effective organization depends on the quality of choice. Although those favoring a population-ecology perspective may adopt the rather pessimistic stance that this choice will never count for much because environmental forces ultimately have the upper hand in determining the fate of an organization, the contingency view offers a new flexibility of approach.

The fourth major strength of the metaphor is that it stresses the virtue of organic forms of organization in the process of innovation. It would be an exaggeration to suggest that mechanistic organizations do not innovate, but the point contains an important kernel of truth. The ideas explored in this chapter are at one in suggesting that if innovation is a priority, then flexible, dynamic, project-oriented matrix or organic forms of organization will be superior to the mechanistic-bureaucratic ones.

Another obvious strength of the organismic metaphor rests in its contributions to the theory and practice of organizational development, especially through the contingency approach. The metaphor has also had a major impact upon the theory and practice of corporate strategy, which for the most part now focuses on achieving an appropriate fit between organization and environment.

Finally, the metaphor is making important contributions through a focus on "ecology" and interorganizational relations. Researchers adopting ecological views have reinforced the idea that a theory of interorganizational relations is necessary if we are to understand how the world of organization actually evolves. If the organizational ecologists are correct,

it may also be necessary to create new forms of interorganizational relations to deal with the complex environments that modern organizations now face.

As noted in Chapter 1, a way of seeing is a way of not seeing. Now that the organismic image of organization has established its powerful credentials, it is difficult to see how the classical theorists could have given so little attention to the influence of the environment. It is also difficult to see how they could have believed that there are uniform principles of management worthy of universal application. Yet we have to remember that the organizational world was much simpler then. The rise in importance of the organismic metaphor is in many respects a product of changing times that have undermined the efficiency of bureaucratic organizations. Organization theorists did not simply discover the organismic metaphor; they needed it to keep abreast of developments, and as we have seen, they have exploited its insights in many different ways.

This said and done, the metaphor does have major limitations, most of which are associated with the basic way of seeing that the metaphor encourages. The first of these is the fact that we are led to view organizations and their environments in a way that is far too concrete. We know that organisms live in a natural world with material properties that determine the life and welfare of its inhabitants. We can see this world. We can touch and feel it. Nature presents itself as being objective and real in every aspect. However, this image breaks down when applied to society and organization because organizations and their environments can, at least to some extent, be understood as socially constructed phenomena. As we will discuss in some detail in Chapter 5, organizations are very much products of visions, ideas, norms, and beliefs, so their shape and structure is much more fragile and tentative than the material structure of an organism. True, there are many material aspects of organizations, such as land, buildings, machines, and money, but organizations fundamentally depend for life—in the form of ongoing organizational activity—upon the creative actions of human beings. Organizational environments can also be seen as being products of human creativity because they are made through the actions of the individuals, groups, and organizations who populate them.

In view of this, it is misleading to suggest that organizations need to "adapt" to their environments, as do the contingency theorists, or that environments "select" the organizations that are to survive, as do the population ecologists. Both views tend to make organizations and their members dependent upon forces operating in an external world rather than recognizing that they are active agents operating with others in the construction of that world. The natural selection view of organizational evolution in particular gives the individual organization little influence in

the struggle for survival. This view undermines the power of organizations and their members to help make their own futures. Organizations, unlike organisms, have a choice as to whether they are to compete or to collaborate. We may agree that an organization acting in isolation can have little impact on the environment, and hence that the environment presents itself as external and real in its effects, but it is quite a different matter when we consider the possibility of organizations collaborating in pursuit of plural interests to shape the environment they desire.

A second limitation of the organismic metaphor rests in its assumption of "functional unity." If we look at organisms in the natural world we find them characterized by a functional interdependence where every element of the system under normal circumstances works for all the other elements. Thus, in the human body the blood, heart, lungs, arms, and legs normally work together to preserve the homeostatic functioning of the whole. The system is unified and shares a common life and a common future. Circumstances in which one element works in a way that sabotages the whole, as when appendicitis or a heart attack threatens one's life, are exceptional and potentially pathological.

If we look at most organizations, however, we find that the times at which their different elements operate with the degree of harmony discussed above are often more exceptional than normal. Most organizations are not as functionally unified as organisms. The different elements of an organization are usually capable of living separate lives and often do so. Although organizations *may* at times be highly unified, with people in different departments working in a selfless way for the organization as a whole, they may at other times be characterized by schism and major conflict.

The organismic metaphor has had a subtle yet important impact on our general thinking by encouraging us to believe in a state of unity where everyone is "pulling together." This style of thought usually leads us to see "political" and other self-interested activity as abnormal or dysfunctional features that should be absent in the healthy organization. As will become apparent from discussion in Chapter 6, where we will be examining organizations as political systems, the emphasis upon unity rather than conflict as the normal state of organization may be an inherent weakness of the organismic metaphor. In recent years, those favoring the metaphor have begun to recognize this weakness by giving more attention to the role of power in organizations, but they rarely have gone so far as to abandon the ideal of functional unity. There are good reasons for this. The idea that organizations can work in a functionally unified way is popular, particularly among managers charged with the task of holding organizations together.

The above point brings us to the final limitation of the organismic metaphor to be considered here: the danger of the metaphor becoming an ideology. This is always a problem in applied social science where images or theories come to serve as normative guidelines for shaping practice. We have already seen the impact of the machine metaphor on classical management theory: The idea that the organization is a machine sets the basis for the idea that it ought to be run like a machine. With the organismic metaphor, this "ought" takes a number of forms. For example, the fact that organisms are functionally integrated can easily set the basis for the idea that organizations *should* be the same way. Much of organizational development attempts to achieve this ideal by finding ways of integrating individual and organization—for example, by designing work that allows people to satisfy their personal needs *through* the organization. Whereas Frederick Taylor's scientific management provided an ideology based on the idea that "efficiency and productivity is in the interests of all," ideologies associated with "OD" tend to emphasize that we can live full and satisfying lives if we fulfill our personal needs through the organizations that dominate the contemporary scene. Many argue that this style of thinking runs the danger of producing an organizational society populated by the "organization man" and the "organization woman." People become resources to be developed rather than human beings who are valued in themselves and who are encouraged to choose and shape their own future. This issue directs attention to the values that underlie much organizational development and, by implication, to the values associated with the use of the organismic metaphor as a basis for theorizing.

Another important ideological dimension of some of the theories discussed in this chapter is found in their links with the social philosophy of the nineteenth century. For example, the population-ecology view of organizations revives the ideology of social Darwinism, which stressed that social life is based on the laws of nature and that only the fittest will survive. Social Darwinism arose as an ideology supporting the early development of capitalism in which small firms competed for survival on a free and open basis. The population-ecology view of organization in effect develops an equivalent ideology for modern times, holding up a mirror to the organizational world and suggesting that the view we see reflects a law of nature. In effect, natural law is invoked to legitimize the organization of society. Obviously, there are real dangers in doing this because when we take the parallels between nature and society too seriously we fail to see that human beings, in principle, have a large measure of influence and choice over what their world can be.