GARETH MORGAN

IMAGES OF ORGANIZATION

THE EXECUTIVE EDITION

The international bestseller that revolutionized how we see organizations... newly abridged for today's manager

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Nature Intervenes: Organizations As Organisms

THE IMAGE OF AN ORGANISM SEEKING TO ADAPT AND SURVIVE IN A CHANGING ENVIRONMENT offers a powerful perspective for managers who want to help their organizations flow with change.

- The metaphor helps us to understand organizations as clusters of interconnected human, business, and technical needs.
- It encourages us to learn about the art of corporate survival.
- It urges us to develop vibrant organic systems that remain open to new challenges.

The metaphor offers powerful ways of thinking about strategy and organizational design, showing that the mechanical perspective, so popular in management, is just one of many approaches. It encourages us to see how whole populations of organizations may rise and fall along with the transformation of the niches and resource flows on which they depend, and to understand that, as in nature, the evolution of the corporate world reflects a "survival of the fitting," not just the survival of the fittest.

The metaphor suggests that different environments favor different species of organizations based on different methods of organizing and that congruence with the environment is the key to success.

LET'S THINK ABOUT ORGANIZATIONS AS IF THEY WERE ORGANISMS.

We find ourselves thinking about them as living systems, existing in a wider environment on which they depend for the satisfaction of various needs. And as we look around the organizational world, we begin to see that it is possible to identify different species of organization in different kinds of environments. Just as we find polar bears in arctic regions, camels in deserts, and alligators in swamps, we notice that certain species of organization are better "adapted" to specific environmental conditions than others. We find that bureaucratic organizations tend to work most effectively in environments that are stable or protected in some way and that very different species are found in more competitive and turbulent regions, such as the environments of high-tech firms in the aerospace and microelectronics industries.

In this simple line of inquiry we find many of the key ideas in organization theory throughout the second half of the twentieth century. The problems of mechanistic organization resulted in shifting attention away from mechanical science and toward biology as a source of ideas for thinking about organization. In the process, organization theory has become a kind of biology in which the distinctions and relations among *molecules, cells, complex organisms, species,* and *ecology* are paralleled in those between *individuals, groups, organizations, populations (species) of organizations,* and their *social ecology.* This has generated many new ideas for understanding how organizations function and the factors that influence their well-being.

In this chapter, we will explore how the organismic metaphor has helped organization theorists identify and study different organizational needs, and focus on the following:

- organizations as "open systems,"
- the process of adapting organizations to environments,
- organizational life cycles,
- factors influencing organizational health and development,
- different species of organization, and
- the relations between species and their ecology.

Collectively, these ideas have had an enormous impact on the way we now think about organization. Under the influence of the machine metaphor, organization theory was locked into a form of engineering preoccupied with relations between goals, structures, and efficiency. The idea that organizations are more like organisms guided our attention toward the more general issues of survival, organization-environment relations, and

organizational effectiveness. Goals, structures, and efficiency now become subsidiary to problems of survival and other more biological concerns.

DISCOVERING ORGANIZATIONAL NEEDS

Organization theory began its excursion into biology by developing the idea that employees are people with complex needs that must be satisfied if they are to lead full and healthy lives and to perform effectively in the workplace. In retrospect, this seems an obvious fact of life. We all know that employees work best when motivated by the tasks they have to perform and that the process of motivation hinges on allowing people to achieve rewards that satisfy their personal needs. However, in the nineteenth and early twentieth centuries for many people work was a basic necessity, and those who designed and managed early organizations treated it as such.

As we saw in the previous chapter, the design of organizations was viewed as a *technical* problem, and the task of encouraging people to comply with the requirements of the organizational machine was reduced to a problem of "paying the right rate for the job." Although esprit de corps was viewed as a valuable aid, management was viewed primarily as a process of controlling and directing employees in their work.

IDENTIFYING SOCIAL AND PSYCHOLOGICAL NEEDS

Much of organization theory since the late 1920s has focused on the limitations of the machine perspective. We can start the story with the Hawthorne studies, conducted in the 1920s and 1930s under the leadership of Elton Mayo. At the outset, the studies were primarily concerned with investigating the relation between conditions of work and the incidence of fatigue and boredom among employees. As the research progressed, it left this narrow perspective to focus on many other aspects of the work situation, including the attitudes and preoccupations of employees, and factors in the social environment outside work.

The studies are now famous for identifying the importance of social needs in the workplace and the fact that work groups can satisfy these needs by restricting output and engaging in other unplanned activities. In identifying that an "informal organization" based on friendship groups and unplanned interactions can exist alongside the formal organization documented in the "blueprints" designed by management, the studies showed that work activities are influenced as much by the nature of human beings as by formal design, and that we must pay close attention to this human side of organization.

The question of work motivation became a burning issue, as did the relations between individuals and groups. A new theory of organization began to emerge, built on the idea that individuals and groups, like biological organisms, operate most effectively only when their needs are satisfied.

For example, Abraham Maslow's theory of motivation (exhibit 3.1) presented the human being as a kind of psychological organism struggling to satisfy its needs in a quest for full growth and development. This theory, which suggested that humans are motivated by a hierarchy of needs progressing through the physiological, the social, and the psychological, had very powerful implications, for it suggested that bureaucratic organizations that sought to motivate employees through money or by merely providing a secure job confined human development to the lower levels of the need hierarchy. Many management theorists were quick to see that jobs and interpersonal relations could be redesigned to create conditions for personal growth that would simultaneously help organizations achieve their aims and objectives.

INTEGRATING THE NEEDS OF INDIVIDUALS AND ORGANIZATIONS

The idea of integrating the needs of individuals and organizations became a powerful force. Alternatives to bureaucratic organization began to emerge as research showed how bureaucratic structures, leadership styles, and work organization generally could be modified to create "enriched," motivating jobs that would encourage people to exercise their capacities for self-control and creativity.

Particular attention was focused on the idea of making employees feel more useful and important by giving them meaningful jobs and by giving as much autonomy, responsibility, and recognition as possible as a means of getting them involved in their work. Job enrichment, combined with a more participative, democratic, and employee-centered style of leadership, arose as an alternative to the excessively narrow, authoritarian, and dehumanizing work orientation generated by scientific management and classical management theory.

Since the 1960s, management and organizational researchers have given much attention to shaping the design of work to increase productivity and job satisfaction while improving work quality and reducing employee absenteeism and turnover. Human resource management has become a major focus of attention, and the need to integrate the human and technical aspects of work an important principle.

TYPE OF NEED	
Self-actualizing	• Encouragement of complete employee commitment • Job a major expressive dimension of employee's life
Ego	• Creation of jobs with scope for achievement, autonomy, responsibility, and personal control • Work enhancing personal identity • Feedback and recognition for good performance (e.g., promotions, "employee of the month" awards)
Social	• Work organization that permits interaction with colleagues • Social and sports facilities • Office and factory parties and outings
Security	• Pension and health care plans • Job tenure • Emphasis on career paths within the organization
Physiological	• Salaries and wages • Safe and pleasant working conditions

Exhibit 3.1. Examples of how organizations can satisfy needs at different levels of Maslow's hierarchy

Sociotechnical systems

This dual focus on people and technology is now captured in the view that organizations are best understood as "sociotechnical systems"—one element in this configuration *always* has important consequences for the other. When we choose a technical system (whether in the form of an organizational structure, job design, or particular technology), it always has human consequences, and vice versa. This was clearly illustrated in Eric Trist and Ken Bamforth's study on technological change in coal mining in England in the late 1940s.

The attempt to mechanize coal mining through the introduction of the "long-wall method" in effect brought assembly-line coal cutting to the coal face and created severe problems by destroying the informal fabric of social relations present in the mine. The new technology promised increases in efficiency yet brought all the social problems now associated with the modern factory. It isolated the miners, broke group cohesion and support, and prevented individuals from exercising control over their work. The resolution of the problems rested in finding a means of reconciling human needs and technical efficiency.

Work in most parts of the world has shown that in designing or managing any kind of social system, whether it be a small group, an organization, or a society, the interdependence of technical and human needs must be kept firmly in mind.

The sociotechnical principle now seems very obvious and is clearly recognized in most popular theories of organization, leadership, and group functioning. But there is still a tendency in management to fall back into a strictly technical view of organization. As noted in the machine chapter, this has been the primary problem facing the reengineering movement. By placing primary emphasis on the design of technical "business systems" as the key to change, the majority of reengineering programs mobilized all kinds of social, cultural, and political resistance that undermined their effectiveness.

RECOGNIZING THE IMPORTANCE OF ENVIRONMENT: ORGANIZATIONS AS OPEN SYSTEMS

When we recognize that individuals, groups, and organizations have needs that must be satisfied, attention is invariably drawn to the fact that they depend on a wider environment for various kinds of sustenance. It is this kind of thinking that now underpins the "open systems approach" to organization, which builds on the principle that organizations, like organisms, are "open" to their environment and

must achieve an appropriate relation with that environment if they are to survive.

The open systems approach has generated many new concepts for thinking about social systems and organizations, which are often presented as general principles for thinking about *all* kinds of systems.

- *An open system* is one in which there is a continuous exchange with the environment. Cycles of input, internal transformation, throughput, output, and feedback exchange are crucial for sustaining the life and form of the system. The open nature of biological and social systems contrasts with the "closed" nature of many physical and mechanical systems, although the degree of openness can vary. Towers, bridges, and clockwork toys with predetermined motions are closed systems. A machine that is able to regulate its internal operation in accordance with variations in the environment may be considered a partially open system. A living organism, organization, or social group is a fully open system.
- *Homeostasis* refers to self-regulation and the ability to maintain a steady state. Biological organisms seek a regularity of form and distinctness from the environment while maintaining a continuous exchange with that environment through "negative feedback," where deviations from standards or norms initiate actions to correct the deviation. When body temperature rises above normal limits, certain bodily functions try to counteract the rise (e.g., we begin to perspire and breathe heavily). Likewise, social systems require homeostatic control processes to maintain their social structure.
- *Entropy* refers to the tendency of closed systems to deteriorate and run down.
- *Negative entropy* refers to open systems' attempts to sustain themselves by importing energy to offset entropic tendencies.
- *Requisite variety* refers to the internal complexity of a system. The law of requisite variety states that the internal regulatory mechanisms of a system must be as diverse as its environment in order to deal with the variety and challenge posed by the environment. Any system that insulates itself from diversity in the environment tends to atrophy and lose its complexity and distinctive nature.
- *Equifinality* refers to the fact that in an open system there may be many different ways of arriving at the same end. Living systems have flexible patterns of organization that allow the achievement of specific results from different starting points with different resources in

different ways. The structure of the system at a given time does not determine the process but rather is a manifestation of the process. In contrast, closed systems relations are fixed to produce specific patterns of cause and effect.

- *System evolution* refers to a cyclical process of variation, selection, and retention of selected system characteristics that allow the system to move to more complex forms of differentiation and integration in order to allow the system to deal with challenges and opportunities posed by the environment.

PRACTICAL IMPLICATIONS OF OPEN SYSTEMS

Open systems principles have been extremely influential and have refocused understanding of organization in several ways.

1. *Open systems theory emphasizes the importance of the environment in which organizations exist.* The classical management theorists devoted relatively little attention to the environment. They treated the organization as a closed mechanical system and became preoccupied with principles of internal design. The open systems view suggests that we should always organize with the environment in mind. It devotes much attention to understanding the immediate task or business environment, defined by the organization's direct interactions with customers, competitors, suppliers, labor unions, and government agencies, as well as the broader contextual or general environment.

   All this has important implications for organizational practice, stressing the importance of being able to

   - scan and sense changes in task and contextual environments,
   - bridge and manage critical boundaries and areas of interdependence, and
   - develop appropriate operational and strategic responses.

   Much of the widespread interest in corporate strategy is a product of this realization that organizations must be sensitive to what is occurring in the world beyond.

2. *Organizations are seen as sets of interrelated subsystems.* Systems are like Chinese boxes in that they always contain wholes within wholes. Likewise, organizations contain individuals (who are systems on their own account) who belong to groups or departments that belong to larger organizational divisions. And so on.

If we define the whole organization as a system, then the other levels can be understood as subsystems, just as molecules, cells, and organs can be seen as subsystems of a living organism, even though they are complex open systems on their own account.

The sociotechnical view of organization is often expanded to take account of relations between technical, social, managerial, strategic, and environmental requirements (exhibit 3.2). This way of thinking has helped us to recognize how everything depends on everything else

Organizations, like organisms, can be conceived of as sets of interacting subsystems. These subsystems can be defined in many ways. Here is one example stressing relations between the different variables that influence the functioning of an organization, thereby providing a useful diagnostic tool.

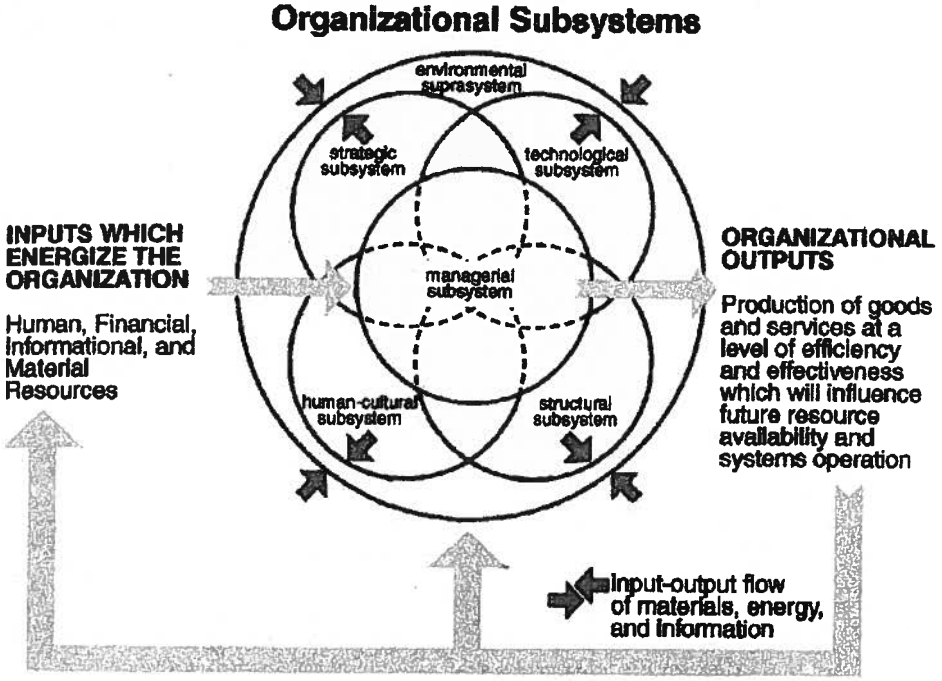

Exhibit 3.2. How an organization can be seen as a set of subsystems, adapted from F. E. Kast and J. E. Rosenzweig, *Contingency Views of Organization and Management*, p 36. © 1973, Science Research Associates, Inc.

and to find ways of managing the relations between critical subsystems and the environment.

3. *The open systems approach encourages us to establish congruencies or "alignments" between different systems and to identify and eliminate*

potential dysfunctions. Just as a sociotechnical approach to work design emphasizes the importance of matching human and technical requirements, open systems theory more generally encourages a matching of the kind of subsystems illustrated in exhibit 3.2. The principle of requisite variety is particularly important in designing control systems or for the management of internal and external boundaries—for these must embrace the complexity of the phenomena being controlled or managed to be effective.

Collectively, these three ideas have helped organization and management theory to break free of bureaucratic thinking to organize in a way that meets the requirements of the environment. They are now usually marshaled under the perspective known as "contingency theory" and in the practice of organizational development.

CONTINGENCY THEORY: ADAPTING ORGANIZATION TO ENVIRONMENT

- Organizations are open systems that need careful management to satisfy and balance internal needs and to adapt to environmental circumstances.
- There is no one best way of organizing. The appropriate form depends on the kind of task or environment with which one is dealing.
- Management must be concerned, above all else, with achieving alignments and "good fits."
- Different approaches to management may be necessary to perform different tasks within the same organization.
- Different types or "species" of organizations are needed in different types of environments.

In a nutshell, these are the main ideas underlying the contingency approach to organization, which has established itself as a dominant perspective in modern organizational analysis.

MECHANISTIC VERSUS ORGANIC ORGANIZATIONS

One of the most influential studies establishing the credentials of this approach was conducted in the 1950s by Tom Burns and G. M. Stalker. Their work is famous for establishing the distinction between "mechanistic" and "organic" approaches to organization and management.

Focusing on firms in a variety of industries (e.g., man-made fibers, engineering, and electronics), Burns and Stalker illustrated that when change in the environment becomes the order of the day, as when chang-

ing technological and market conditions pose new problems and challenges, open and flexible styles of organization and management are required. Exhibit 3.3 captures salient aspects of their study, illustrating patterns of organization and management in four successful firms experiencing different rates of environmental change.

The rayon mill: A mechanistic approach

The rayon mill faced a relatively stable environment, employed a technology that was routine and well understood, and was organized in a highly mechanistic way. The firm had a "factory bible," which was held by every head of a department and defined required action in almost every situation. People in the organization knew precisely what was expected of them and attended to their job responsibilities in a narrow yet efficient way to create a competitively priced product. The firm was relatively successful in meeting the demands placed upon it, treating problematic situations as temporary deviations from the norm and doing whatever it could to stabilize its operating environment. For example, the sales office was sometimes asked to restrain sales in the interest of sustaining an even and trouble-free production schedule.

The switch-gear firm: Modifications to embrace change

In other successful organizations facing more uncertain and turbulent environmental conditions, the mechanistic approach to organization tended to be abandoned; more flexible approaches to organization were required for successful operation. In a switch-gear firm operating in an area of the engineering industry, where product developments hinged on improvements in design and cutting costs and where products were frequently made to customer specifications, systems of authority, communication, and work organization were geared to the contingencies of changing situations. Great use was made of meetings as a means of exchanging information and identifying problems, particularly those relating to the coordination of work, so that an alternative system of organization existed alongside the formal hierarchy defining relationships between specialist tasks.

The radio and television manufacturing firm: A more organic approach

In successful firms in the electronics industry, the departure from the mechanistic mode was even more pronounced. For example, in a firm involved in radio and television manufacture, at the more stable end of the electronics spectrum, the need to keep abreast of market and technological change through frequent product modification and the need to link developments in research and production called for free and open collaboration

	Rayon Mill	Switch-Gear Firm	Radio and Television Firm	Electronics Firm
Nature of environment	Relatively stable: technological and market conditions well understood	Moderate rate of change: expanding market coupled with opportunities for improved products	High degree of change: dynamic technological and market conditions with predictable rate of novelty	Highly unpredictable: rapid technological advance and boundless market opportunities
Nature of task facing the firm	Efficient production of standard product	Efficient production and sale of basic product, subject to modification according to customer requirements	Efficient design, production, and marketing of new products highly competitive in environment	Exploitation of rapid technical change through innovation and exploration of new market situations
Organization of work	Clearly defined jobs arranged in hierarchical pattern	Rough division of job responsibilities according to functional and hierarchical pattern, modified to meet contingencies; no stable division of functions.	Consistent blurring of organizational positions; every section of management concerned with the focal task of competitive selling.	Deliberate attempt to avoid specifying individual tasks; jobs defined by the individuals concerned through interaction with others
Nature of authority	Clearly defined and vested in formal position in hierarchy; seniority important	Not clearly defined but following the hierarchy except in specially convened committees and meetings	Limits of authority and responsibility not defined; authority vested in people with ability to solve problems at hand	Pattern of authority informal and constantly changing as roles become redefined with changing circumstances; vested in individuals with appropriate skills and abilities

	formal position in hierarchy; seniority important	lowing the hierarchy except in specially convened committees and meetings	responsibility not defined; authority vested in people with ability to solve problems at hand	and constantly changing as roles become redefined with changing circumstances; vested in individuals with appropriate skills and abilities
Communications system	According to pattern specified in various rules and regulations; mainly vertical	According to rules and conventions but supplemented by regular system of committees and meetings; junior staff free to consult with top management group	Frequent meetings in a context of constant consultation across all levels and parts of the firm	Completely free and informal; the process of communication was unending and central to the concept of organization
Nature of employee commitment	Commitment to responsibilities associated with their own particular jobs; loyalty and obedience important	Commitment to own job but recognizing the need for flexibility in dealing with contingencies arising from the total situation	Commitment to demands of own functional positions reconciled with wider demands for cooperation and flexible interpretation of function	Full commitment to the central tasks facing the concern as a whole and an ability to deal with considerable stress and uncertainty
	Mechanistic	←		**Organic**

Exhibit 3.3. Patterns of organization and management in four successful organizations facing different rates of environmental change, based on T. Burns and G. M. Stalker, *The Management of Innovation.* © 1961, Tavistock.

and communication across departments and levels of seniority. Meetings were again a central feature, driving and dominating day-to-day work activities. This approach to organization has grown in prominence since the publication of Burns and Stalker's work. It is most evident in the "project" or "matrix" form of organization, which makes use of project teams to deal with the continuous flow of problems and projects associated with changes in corporate policy and the external environment.

The electronics firm: Fully organic

In successful organizations in even more unpredictable areas of the electronics field, where the need to innovate was an essential condition for survival, the mode of organization was even more open. Here, jobs were allowed to shape themselves, because people were appointed to the organization for their general ability and expertise and were allowed and encouraged to find their own place and define the contributions that they could make.

This style of open, organic management is consistent with the way the electronics industry has evolved. When the first commercial electronics firms began operating at the end of World War II, there was no commercial market for electronics products to speak of, for peacetime applications of this newly emerging technology had yet to be found. The electronics industry literally had to invent both products and markets and at the same time cope with the rapid technological change that has converted computers from room-sized giants into devices that fit our pockets. Countless new applications have been found for the basic technology.

From the start, firms in this industry operated in an organic and flexible manner, creating or searching for opportunities in the environment and adapting themselves to take advantage of these opportunities. In the firms observed by Burns and Stalker, the process of finding out what one should be doing proved unending, defining a mode of organization linking inquiry and action, and the process has continued. Successful electronics firms avoided organizational hierarchies and avoided narrow departmentalization, with individuals and groups defining and redefining roles in a collaborative manner in connection with the tasks facing the organization as a whole. They created innovative, team-based organizations having more in common with an amoeba than a machine.

Burns and Stalker's ideas, that it is possible to identify various organizational forms ranging from mechanistic to organic, and that more flexible forms are required to deal with changing environments, quickly received support from other studies. These studies demonstrated that in the process of organizing, a lot of choices have to be made, and that effective

organization depends on achieving a balance or compatibility between strategy, structure, technology, the commitments and needs of people, and the external environment. We find here the essence of modern contingency theory. But it took an important study, led by Paul Lawrence and Jay Lorsch, to hammer the point home.

AWARENESS OF THE NEED FOR INTERNAL DIFFERENTIATION AND INTEGRATION

Lawrence and Lorsch's research was built around two principal ideas:

1. that different kinds of organizations are needed to deal with different market and technological conditions, and
2. that organizations operating in uncertain and turbulent environments need to achieve a higher degree of internal differentiation (e.g., between departments) than those in environments that are less complex and more stable.

They studied high- and low-performance organizations in three industries experiencing high, moderate, and low rates of growth and technological and market change:

- The *plastics industry* was selected as an example of a turbulent environment.
- The *standardized container industry* was selected as an example of a stable environment.
- The *food industry* served as an example that falls between a stable and a turbulent environment.

Lawrence and Lorsch's results supported their hypotheses, showing that successful firms in each environment achieved an appropriate degree of differentiation and integration and that the degree of differentiation between departments tended to be greater in the plastics industry than in the food industry, which was in turn greater than that in the standardized container industry.

The Lawrence and Lorsch study thus refined the contingency approach by showing that styles of organization may need to vary between organizational subunits because of the detailed characteristics of their subenvironments. At the time of their study, production departments typically faced task environments characterized by more clear-cut goals and shorter time horizons. They adopted more formal or bureaucratic modes of interaction. Research and development departments, especially those engaged in fundamental as opposed to applied research, faced even more ambiguous goals, had longer time horizons, and usually adopted even more

informal modes of interaction. The study showed that the degree of required differentiation in managerial and organization styles between departments varied according to the nature of the industry and its environment and that an appropriate degree of integration was also needed to tie the differentiated parts together again.

The study also yielded important insights on modes of integration: In relatively stable environments, conventional bureaucratic modes of integration such as hierarchy and rules appeared to work quite well. But in more turbulent environments, they needed to be replaced by other modes, such as the use of multidisciplinary project teams and the appointment of personnel skilled in the art of coordination and conflict resolution. The successful use of these integrative devices was also shown to be dependent on achieving an intermediate stance between the units being coordinated; on the power, status, and competence of those involved; and on the presence of a structure of rewards favoring integration.

Lawrence and Lorsch gave precision and refinement to the general idea that certain organizations need to be more organic than others, suggesting that the degree of organicism required varies from one organizational subunit to another. Even in the dynamic context of an electronics firm, where the dominant ethic may be to remain open, flexible, and innovative, certain aspects of production or financial administration may require clearer definition and control than work in other areas.

THE VARIETY OF THE SPECIES

Since the 1960s, hundreds of research studies have further addressed the job of specifying organizational characteristics and their success in dealing with different tasks and environmental conditions, adding rich insight to the mechanistic-organic continuum developed by Burns and Stalker. The idea has developed that different "species" of organization are needed to cope with the demands of different environments.

For example, Henry Mintzberg has identified five types of organization:

- the *machine bureaucracy,*
- the *divisionalized form,*
- the *professional bureaucracy,*
- the *simple structure,* and
- the species that we refer to as the *adhocracy.*

Within each species, effective organization depends on developing a cohesive set of relations between structural design; the age, size, and tech-

nology of the firm; and the conditions of the industry in which it is operating.

The machine bureaucracy and the divisionalized form (as seen in the machine chapter) tend to be ineffective except under conditions where tasks and environment are simple and stable. Their highly centralized systems of control tend to make them slow and ineffective in dealing with changing circumstances. While appropriate for firms that are production driven or efficiency driven, they are often inappropriate for firms that are market or environment driven.

The professional bureaucracy modifies the principles of centralized control to allow greater autonomy to staff and is appropriate for dealing with relatively stable conditions where tasks are relatively complicated. This has proved an appropriate structure for universities, hospitals, and other professional organizations where people with key skills and abilities need a large measure of autonomy and discretion to be effective in their work. But since the 1980s, the profesional bureaucracy's effectiveness has been severely challenged by the changing environments with which these kinds of organizations have had to deal. The structure of the professional bureaucracy tends to be fairly flat with tall hierarchies being replaced by a decentralized system of authority. Standardization and integration are achieved through professional training and the acceptance of key operating norms rather than through more direct forms of control.

The simple structure and adhocracy tend to work best in unstable environmental conditions.

The simple structure usually comprises a chief executive, often the founder or an entrepreneur, who may have a group of support staff along with a group of operators who do the basic work. Organization is very informal and flexible and, although run in a highly centralized way by the chief executive, is ideal for achieving quick changes and maneuvers. This form of organization works very well in entrepreneurial organizations where speedy decision making is at a premium, provided that tasks are not too complex. It is typical of successful young and innovative companies.

The adhocracy characterizes organizations that are temporary by design, approximating Burns and Stalker's organic form of organization. It is a form highly suited for the performance of complex and uncertain tasks in turbulent environments. It usually involves project teams that come together to perform a task and disappear when the task is over, with members regrouping in other teams devoted to other projects. Sometimes, this kind of enterprise is called a "virtual" or "network" organization, especially

when teams and team members are spread geographically, using electronic technology and occasional face-to-face meetings to integrate their activities.

Adhocracies, "virtual teams," and "virtual organizations" now abound in innovative firms in the electronic and other high-tech and rapidly changing industries. They are the norm in all kinds of project-oriented companies, such as consulting firms and advertising agencies, and in the movie industry. This form of organization also sometimes emerges as a differentiated unit of a larger organization: for example, an ad hoc task group or project team performing a limited assignment or contributing to the strategic planning and development of the organization as a whole. It is also frequently used in research and development (R&D).

Each species of organization seems to have distinct characteristics and distinctive niches in which it excels. Like organizations in the natural world, it seems that successful organizations evolve appropriate structures and processes for dealing with the challenges of their external environment, and the proliferation of species equipped to deal with high degrees of change seems to be a major trend. As technological and market changes challenge traditional niches, many old-style bureaucracies are becoming extinct and being replaced by more nimble competitors.

Despite a high degree of consensus about the nature of this basic trend, organization and management researchers are deeply split in terms of their explanations of *how* organizations can strike an appropriate relationship with the environment:

- One school of thought argues that managers can use the insights of contingency theory to develop a "good fit" between organization and environment.
- The other argues that, although short-term innovation and adjustments are always possible, the forces of natural selection and the environment are ultimately in control.

These contrasting views are explored in the following sections of this chapter.

CONTINGENCY THEORY: PROMOTING ORGANIZATIONAL HEALTH AND DEVELOPMENT

DIAGNOSING ORGANIZATION-ENVIRONMENT COMPATIBILITY

- How can an organization systematically achieve a good fit with its environment?
- How can it adapt to changing environmental circumstances?

- How can it ensure that internal relations are balanced and appropriate?
- What does this mean in operational terms?

These and related questions have become the focus of attention for numerous consultancy-oriented researchers working in the field of organizational development. They have helped bring the insights generated by the contingency theorists and by the systems approach down to earth by developing diagnostic and prescriptive models to identify organizational ailments and to prescribe some kind of cure. To diagnose and prescribe, they usually pose a series of questions about the existing internal organizational relations and between the organization and environment, for example:

1. *What is the nature of the organization's environment?*

   Is it simple and stable or complex and turbulent? Is it easy to see interconnections between various elements of the environment?

   What changes are occurring in the economic, technological, market, labor relations, and sociopolitical dimensions?

   What is the chance of some development transforming the whole environment—some development that will create a new opportunity or challenge the viability of existing operations?

2. *What kind of strategy is being employed?*

   Is the organization adopting a nonstrategy, simply reacting to whatever change comes along?

   Is the organization attempting to defend a particular niche that it has created in the environment?

   Is the organization systematically analyzing the environment to identify new threats and opportunities?

   Is the organization adopting an innovative, proactive stance, constantly searching for new opportunities and evaluating existing activities?

   Is the stance toward the environment competitive or collaborative?

3. *What kind of technology (mechanical and nonmechanical) is being used?*

   Are the processes used to transform inputs into outputs standardized and routinized?

   Does the technology create jobs with high or low scope for responsibility and autonomy?

Does the technology rigidify operations, or is it flexible and open-ended?

What technological choices face the organization?

Can it replace rigid systems with more flexible forms?

4. *What kinds of people are employed, and what is the dominant "culture" or ethos within the organization?*

What orientations do people bring to their work? Is a narrow "I'm here for the money" commitment the norm, or are people searching for challenge and involvement?

What are the core values and beliefs shaping patterns of corporate culture and subculture?

5. *How is the organization structured, and what are the dominant managerial philosophies?*

Is the organization bureaucratic, or are matrix/organic forms of organization the norm?

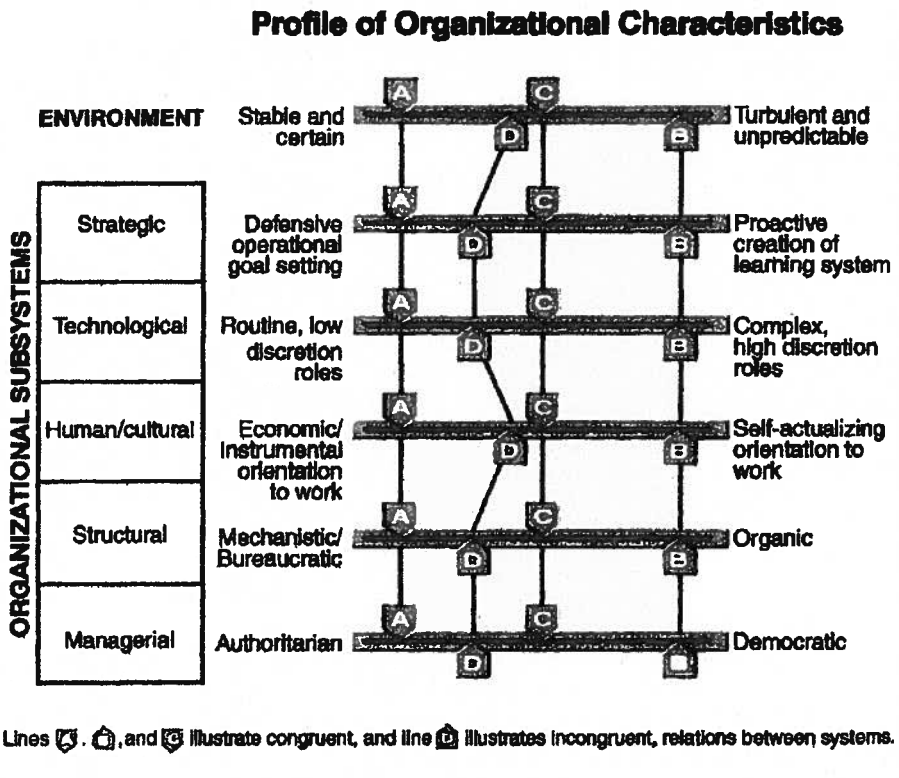

Exhibit 3.4. Congruence and incongruence between organizational subsystems, adapted from G. Burrell and G. Morgan, *Sociological Paradigms and Organizational Analysis*, p. 177. © 1979, Heinemann Educational Books.

Is the dominant managerial philosophy authoritarian, stressing accountability and close control?

Or is it more democratic, encouraging initiative and enterprise throughout the organization?

Does the philosophy stress safe but sure approaches, or is it innovative and risk taking?

This scheme of questioning builds on the idea that the organization consists of interrelated subsystems of a strategic, human, technological, structural, and managerial nature (see exhibit 3.2). From a contingency standpoint, these subsystems need to be both internally consistent and adapted to environmental conditions. Exhibit 3.4 shows how we can plot our answers to create a practical tool that reveals congruencies and incongruencies between organization and environment.

Three examples of congruent relations between organizational and environmental characteristics are represented by the positions A, B, and C in exhibit 3.4. In accordance with the conclusions of contingency theory, each is likely to be highly effective.

Position A represents an organization in a stable environment adopting a defensive strategy to protect its niche. Perhaps it is an organization commanding a secure market on the basis of a good quality product produced in a cost-efficient way. The organization employs a mass-production technology and is structured and managed mechanistically. The people employed are content with their narrowly defined roles, and the organization operates in an efficient and trouble-free manner.

Position C represents an organization encountering a moderate degree of change in its environment. Technological developments are occurring at a regular pace, and markets are in a constant state of transition. The organization has to keep abreast of these developments, analyzing emergent trends, updating production methods, and creating a flow of product modifications rather like the radio and television firm in Burns and Stalker's study. It is not on the cutting edge of innovation. Its competitive advantage rests in being able to produce a better product in a cost-effective way. The organization adopts an effective project-driven matrix organization and commands the required flexibility and commitment from its staff.

Position B represents the case of a firm in a highly turbulent environment where products and technologies are constantly changing and often have a very short life span. This means that the firm has to search for new ideas and opportunities on a continuous basis. The firm is a kind of "prospector," always looking for new places where it can strike gold. It relies

on getting there first, recognizing that type C organizations will soon move in with a competitive product. Innovation is the lifeblood of this organization. It employs people who are prepared to make massive commitments to their work and who are motivated and managed in an organic way. Again, this organization is balanced internally and in relation to its environment.

Position D, on the other hand, presents an example of a set of organization-environment relations where the strategic stance, technology, and approach to organization and management are incongruent with the nature of the environment and the general orientations of the people within the organization. The conclusions of contingency theory suggest this would be ineffective. The situation is characteristic of an organization that is overbureaucratized, being more inclined to defend the position it has achieved than to search out new opportunities. It is a frustrating place in which to work because the employees are looking for more open and demanding jobs than the strategy, technology, organization, and managerial style allow. Contingency theorists suggest that the organization should be designed and managed like organization C. If a way could be found to allow the people who are highly involved with the organization to initiate changes in the required direction, the organization could achieve a much more effective configuration of relations. At present, the incongruencies get in the way of effective operations, and the organization is likely to find difficulty in sustaining its position within the industry.

Organizational development practitioners confronted with the situation in organization D would attempt to improve the alignment of relations by persuading management to move closer to a C configuration. This organizational change strategy could involve action on a number of fronts—in relation to strategy, technology, organization structure, and management style. It would also involve an attempt to change the culture of the organization, namely, the systems of belief and practice that hold the organization in its ineffective configuration.

Balancing relations at the subunit level

The analytical diagnosis presented above can be conducted at the level of a total organization or major division, but it will also need to be conducted at the level of subunits within the organization to take account of Lawrence and Lorsch's point about the need for appropriate differentiation and integration.

Analysis at the subunit level identifies the pattern of relations necessary for dealing with various subenvironments and shows the required differentiation and integration. However, contingency theory suggests that care must be taken to ensure that the requirements of the parts do not take

priority over those of the whole and that critical competencies are kept firmly in mind. For example, in organizations where frontline innovation is the basis of survival, the design and management of subunits must accommodate the primary task of innovation rather than the reverse.

The task of successful organizational change and development usually hinges on bringing variables into closer alignment so that an organization can meet the challenges and opportunities posed by its environment. In nature we find that organisms are endowed with a harmonious pattern of internal and external relations as a result of evolution. In organizations, however, the degree of internal harmony and fit with the environment is a product of human decision, action, and inaction so that incongruence and conflict are often the rule. As a result, there are usually many problems to keep managers and organizational consultants favoring a contingency approach very busy.

NATURAL SELECTION: THE POPULATION ECOLOGY VIEW OF ORGANIZATIONS

Up to now our use of the organismic metaphor has focused on organizations as the key units of analysis. We have discussed how organizations and their members can be seen as having different sets of needs and examined how organizations can develop patterns of relations that allow them to adapt to their environment. Survival has been presented as a problem of adaptation, with contingency theory offered as a means of identifying patterns of good fit and showing how these can be achieved.

Popular as this approach has been, in recent years it has attracted growing criticism from theorists and researchers subscribing to a "natural selection" view of organizations. In their opinion, the idea that organizations can adapt to their environment attributes too much flexibility and power to the organization and too little to the environment as a force in organizational survival. They advocate that we must counteract this imbalance by focusing on the way environments "select" organizations and that this can best be done by analysis at the level of *populations* of organizations and their wider ecology.

The "population ecology" view of organization brings Darwin's theory of evolution right into the center of organizational analysis. In essence, the argument is as follows: Organizations, like organisms in nature, depend for survival on their ability to acquire an adequate supply of the resources necessary to sustain existence. They have to face competition from other organizations, and since there is usually a resource scarcity, only the fittest survive. The nature, numbers, and distribution of organizations at any

given time are dependent on resource availability and on competition within and between different species of organizations, making the environment the critical factor in determining which organizations succeed and which fail, by "selecting" the most robust competitors through elimination of the weaker ones.

Although selection may be the mechanism through which evolution occurs, it depends on there being variation in individual characteristics. Without variation there is nothing to select. So most applications of Darwin's theory build on a cyclical model that allows for the *variation, selection, retention,* and *modification* of species characteristics. Variations in a species typically arise as a result of cross-reproduction and random variation of characteristics. Some of these variations may confer a competitive advantage on the survival process, leading to a better chance of selection or of evolving along with changes in the environment. Because the surviving members of a species, or emerging new species, provide a foundation for the next stage of reproduction, there is a strong chance that the new characteristics will be retained. In turn, these characteristics will be subject to random modification, creating the variety that allows the process to continue. In this way, new species and ecological patterns evolve from variations in the old.

Although evolution occurs through modification of individual members of a species, the population ecologists argue that it is more important to understand evolutionary dynamics at the level of the population. When the environment changes or when a new species makes an inroad on the resource niche traditionally held by another, ultimately the change is reflected in population structure. Because members of a species tend to share similar strengths and weaknesses, it is the whole species that tends to survive or fail. Although some individual members may be fitter than others, they are often not as fit as the incoming species and tend to share the fate of their population in the long run.

This population perspective encourages us to understand the dynamics influencing whole populations of organizations. It suggests that organizational analysis should shift from explaining how individual organizations adapt to their environments to understanding how different species rise and decline in importance.

- Why are there so many different kinds of organizations?
- What factors influence their numbers and distribution?
- What factors influence a population's ability to acquire or retain a resource niche?

Under the influence of these and related questions, the population ecologists have begun to develop a form of organizational demography. Numerous research studies are attempting to identify species or populations (typically defined as sets of organizations sharing certain characteristics or a common fate with regard to environmental circumstances) and the birth rates, death rates, and general factors influencing organizational life cycles, growth, and decline. Considerable attention has also been devoted to understanding organizations and their environments in terms of "resource dependencies" and the patterning and availability of resource niches.

INSIGHTS CREATED BY THE POPULATION PERSPECTIVE

1. *Inertial pressures may prevent organizations from changing in response to their environment.* These inertial pressures include specialization of production plants and personnel; established ideas and "mindsets" of top managers; inadequate information; the difficulty of restructuring technology and personnel in unionized plants; the force of tradition; barriers to entry created by legal, fiscal, and other circumstances; and many other factors that make it impossible for organizations to engage in timely and efficient changes.
2. *Faced with new kinds of competition or environmental circumstances, whole industries or types of organization may come and go.* Large traditional steel mills may give way to small, technologically advanced competitors; department stores may give way to specialty stores in shopping malls or to "factory outlets"; coal mines and oil companies may give way to entrepreneurial solar energy firms; bureaucracies may give way to more flexible project-oriented firms, or market driven competitors; firms offering traditional products and services throughout the economy may find themselves eliminated by information technology companies serving customers in a completely different way; and public sector organizations in government, education, or health care may find once secure niches completely eroded by more nimble service-oriented firms in the private sector.
3. *The ability to obtain a resource niche and outperform one's competitors is all-important, and in the long run, relative superiority in being able to command resources applies to whole populations of organizations.* Perhaps one particularly skillful or efficient steel mill or department store may be able to hold off new forms of competition a little longer than other members of its species, but in the long run it too may become extinct, as a result of environmental changes that favor species of better fit.

4. *An awareness of the changing structure of critical resource niches and patterns of resource dependencies can make important contributions to our understanding of the success and power of different organizations.* The way that new populations of organizations can emerge through the dissemination of innovations or new practices, as has happened in the computer and electronics sector, does much to explain the changing structure of industry.

CRITICISMS OF POPULATION ECOLOGY THEORY

This kind of thinking has proved persuasive in many management circles, drawing attention to how organizations can be buffeted by broad environmental forces over which they have little control. However, there are counterviews. In particular

1. *The theory is seen as too deterministic.* If we accept at face value the theory that environments select organizations for survival, then in the long run it really doesn't matter what managers and decision makers do. Even efficient and successful firms that adapt to their environment are liable to fail as the result of environmental changes that influence the structure of their resource niche.

   The population ecology view has been much criticized for downplaying the importance of the choice of strategic direction for an organization. Despite inertial pressures, an organization may be able to transform itself from one kind of organization into another or shift from a declining niche to a more profitable one. For example, companies like General Electric have shifted out of their core business, in this case the electrical business, to become diversified conglomerates spanning many different sectors.

2. *The theory is seen as placing too much emphasis on resource scarcity and competition.* The emphasis on resource scarcity and competition, which lie at the basis of selection, underplays the fact that resources can be abundant and self-renewing and that organisms can collaborate as well as compete. Organizations that focus on creating value for existing new customers may be able to generate resource niches that never existed before. Many aspects of development in the information technology industry, bioengineering, and the electronic media business are fueled by this kind of process. Social and economic resources, especially in a knowledge economy, are inherently self-generating. When these neglected aspects of population ecology are brought into consideration, a more optimistic view of the ecology of organizations begins to emerge. It is to this that we now turn.

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.

SURVIVAL = "SURVIVAL OF THE FITTING"

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 comprising 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.

Organizations and their environments are engaged in a pattern of cocreation, 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 negotiated environments rather than independent external forces.

COLLABORATION, COMPETITION AND THE EVOLUTIONARY PROCESS

In 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.

Examples of day-to-day collaborative relations between organizations in different industries or in different parts of the same industry are also very common. 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 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. And in the high technology sector it is now quite common to find clusters of organizations collaborating and competing in a way that enhances the fitness of the whole niche.

An ecological perspective that emphasizes the importance of collaboration as well as competition 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.

Inspired by this idea, social scientists have begun to investigate 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, it is argued that these relations should be encouraged to help make the turbulence more manageable. For example, the late Eric Trist came up with the idea of developing domain-based organizations that can 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 and regional and community economic development, as well as in 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 find new solutions to shared problems.

The concern 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 marshals 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, 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.

STRENGTHS

- **The metaphor suggests that organizations must always pay close attention to their external environments.**

Earlier mechanical theories (explored in the machine chapter) 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 must take close account of their environments to stand any chance of surviving. They must look externally, not just at issues of internal design.

- **Survival and evolution become central concerns.**

The organismic metaphor emphasizes survival as the key aim facing any organization. This contrasts with the classical focus on the achievement of specific operational goals. Survival is a process. Goals and targets are often

endpoints. This reorientation adds flexibility and warns of the dangers of goals becoming ends in themselves, a common fate in many organizations. The focus on the use and acquisition of resources and the satisfaction of different "needs" also encourages a broader and more flexible approach.

- **Achieving congruence with the environment becomes a key managerial task.**

In identifying different "species" of organization, we are alerted to the fact that in organizing we always have a range of options. 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 form.

- **The perspective contributes to the theory and practice of organization development.**

By focusing on key organizational subsystems and "needs," the organismic metaphor offers a methodology for transforming organizations to achieve effective relations with the environment. As shown, it has provided a powerful base for much management and consulting practice.

- **We acquire a new understanding of organization ecology.**

Whether we listen to "population ecologists" or advocates of collective evolution, the message of the organismic metaphor is the same. Organizations cannot survive as independent entities. Their future is bound with that of the wider context to which they belong. Here again, the metaphor invites us to broaden insight well beyond the boundaries of classical management theory.

LIMITATIONS

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. But 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 devel-

opments, and as we have seen, they have exploited its insights in many different ways.

Interestingly, most of the organismic metaphor's limitations are associated with the basic way of seeing that the metaphor encourages. Specifically

- **Organizations are *not* organisms, and their environments are far less concrete than the metaphor presumes.**

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 the culture chapter, 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 organization, such as the 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.

It is thus misleading to suggest that organizations need to "adapt" to their environment, 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.

■ **The metaphor overstates the degree of "functional unity" and internal cohesion found in most organizations.**

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. 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 that the unity and harmony characteristic of organisms can be achieved in organizational life. We often tend to equate organizational well-being with 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 we will see in the politics chapter, 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 metaphor can easily become ideology.**

The danger of metaphor becoming an ideology 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 organ-

ization 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. 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 are in the interests of all," ideologies associated with organizational development tend to emphasize that we can live full and satisfying lives if we fulfill our personal needs through our organizations.

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. 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. This is a theme that will receive a lot of attention in future chapters.