Organization–environment relations

When general systems theory introduced the notion of levels of analysis in the 1950s, organization theorists began to define **organizational environment** as the supersystem of which organizational systems are a part. This idea seemed revolutionary to management theorists inclined until then to treat organizations as if their internal operations were the sole source of management concern, apart from the economics of competition, of course. All of that was to change with the appearance of concepts like external forces, organizational fields, and populations, all of which eventually coalesced into the study of how organizations relate to their environments.

Until recently, most theorizing about organization–environment relations was conducted from within the modern perspective. However, after the symbolic perspective established itself, theories involving institutionalized and enacted environments began to appear. Since then postmodern critiques of organization theory have introduced different concerns into discussions of organization–environment relations, such as stakeholder rights, sustainability, and corporate social responsibility.

This chapter begins at the beginning, historically speaking, with early modernist definitions of the organizational environment still in wide use today. Four theories of organization–environment relations will be reviewed—contingency theory, resource dependence theory, population ecology, and institutional theory—the last of which brought symbolic thinking to the study of organizational environments. I will present the postmodern perspective in terms of a brief summary of post-industrial history, moving from there into stakeholder theory, and concluding with a postmodern deconstruction of modern concepts of environment.

Defining and analyzing organizational environments: The modern perspective

In the modern perspective the environment appears as an objective entity lying outside an organization's boundary (see Figure 3.1). From the environment's point of view, organizations are instruments for producing products and/or services in demand within the environment. From the organization's viewpoint, the environment provides the raw materials and other

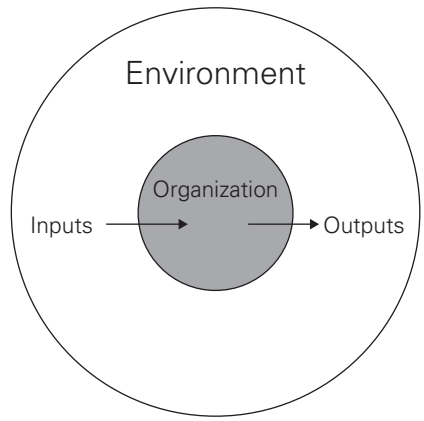

Figure 3.1 The organization in its environment

A simple distinction showing the organization as an entity (system) embedded within a larger system (supersystem) that supplies its resource inputs and absorbs its outputs (goods and services). Notice the modernist presumption of a discernible boundary separating the organization from its environment.

inputs it needs to produce output, and then absorbs that output, thereby supplying the means to acquire more inputs, and so on.

Defining an environment as what lies outside an **organizational boundary** involves making decisions about inclusion and exclusion. Deciding what lies inside and what remains outside can get tricky. Think of a university. Are students members of the university? Customers? Raw material? Products? What about the membership status of visiting professors or non-tenured faculty, guest lecturers, alumni, and benefactors? There is no simple solution to drawing an organizational boundary; the best approaches will be informed by the purpose of your analysis.

In the university's case, if you are analyzing the environment because the university wants to know the likely effects of imposing a tuition increase, then it will be useful to consider students as customers and, thus, members of the environment rather than of the organization. If the university is making an application for outside research funds, then defining students as members of the organization will give you reason to describe how they will benefit from the proposed research activities, which might support the application. If, however, you are interested in discovering how the environment is responding to a university's new education programs, then viewing students as products of the organization is likely to provide useful input to your analysis.

Another challenge you face in defining the environment of an organization comes from the different levels of analysis you can choose your focus. Modern organization theorists define and analyze organization–environment relations at the levels of:

a. stakeholders and the inter-organizational networks they form,
b. the conditions and trends within environmental sectors, and
c. the global environment emerging from interactions among the organizational and environmental subsystems of which it is comprised.

Figure 3.2 Organizations operate within environments comprised of stakeholders and competitors

Defining relevant actors in your organization's environment using this model will help you to recognize the influence of key stakeholders and address their needs, interests, and activities.

You need to be vigilant as you study organization–environment relations using these schemes; it is easy to get confused as you move between levels of analysis and confront the many interrelationships among their constituents.

Inter-organizational networks, stakeholders, and the supply chains

Every organization interacts with other actors (i.e., individuals, groups, other organizations) within its environment.[1] These interactions allow organizations to do all sorts of things such as acquire raw materials, hire employees, secure capital, sell products and services, obtain knowledge, and build, lease, or buy facilities and equipment, as well as participate in, regulate, and oversee exchanges with other actors.

The actors interacting to form an organization's immediate environment are often described as **stakeholders**. Typically these include investors, competitors, suppliers, distributors, partners, advertising and consulting agencies, trade associations, consumer groups, local communities and the general public, unions, government regulators such as tax authorities and licensing agencies, financial analysts, and the media. In its narrow sense, the term stakeholder refers to any actor vital to an organization's survival or success. Those who take stakeholders' interests into account offer a more inclusive definition arguing that every actor affected by the organization's activities should be given consideration in organizational decision making.[2] The categories of stakeholders shown in Figure 3.2 appear in most environmental analyses.

Together the relationships established among an organization's set of stakeholders form its **inter-organizational network** (see Figure 3.3). Nodes of the network represent actors while links between nodes represent channels through which resources, information, opportunities,

and influence flow. Network analysis promotes sensitivity to a variety of measurable variables whose analysis reveals characteristics of the network and its members.

At the organizational level, for example, network analysis can reveal an organization's **centrality** within the network, shown in Figure 3.3 by the size of the nodes used to represent each actor. You can measure centrality by counting the number of links to a node, called 'ties,' and weight each link by its importance to some relevant outcome. At the level of the network, the concentration of links across the entire network reveals **network density**, while the absence of links in an area of the network pinpoints a **structural hole**. Measuring an organization's centrality, a network's density, and identifying structural holes allows you to compare inter-organizational networks and assess their benefits, say for the performance of their members or to identify differences in innovativeness of some networks relative to others so as to try to theorize why such differences occur.[3]

A popular application of the inter-organizational network concept with which you may be familiar is the **supply chain**. This concept focuses attention on the flow of raw material that forms a more or less linear chain of connections originating with the supply of the most basic raw materials (e.g., petroleum by oil companies) and subsequently flowing through intermediary organizations (e.g., oil refineries, petroleum distributors, and gasoline stations) to reach end users (e.g., drivers of gasoline-powered vehicles). In the case of services the focus turns to value-added activities that form a value-chain, but is much the same idea as the supply chain. You can visualize a supply chain or a value chain by cutting a slice through an inter-organizational network that includes all suppliers, partners, distributors, and end users of a given production process or service delivery system. Supply and value chain thinking helps organizations manage all the relationships of a production process or service practice as if

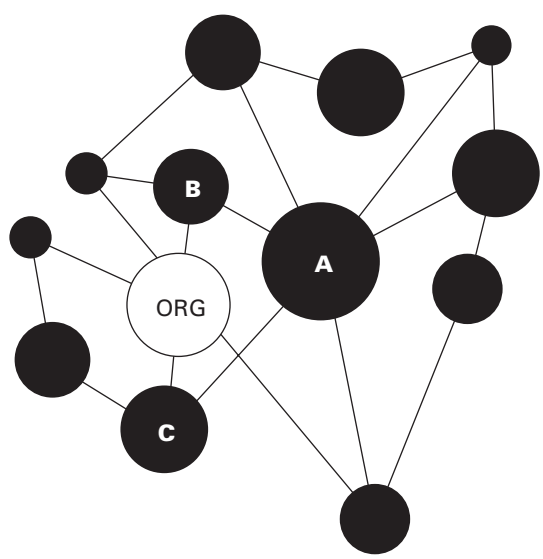

Figure 3.3 The inter-organizational network

This model depicts an inter-organizational network in which organization A, a competitor of the focal organization (ORG), is most central, B is a supplier of both ORG and A, while C is a customer to both.

they were organized as one entity without the necessity of their being integrated into a single firm. This management practice promotes efficiency insofar as dividing the required tasks among supply chain partners brings the advantages of division of labor without the costs of adding layers of management or bureaucracy to monitor and control their collective performance.

Conditions and trends in the environment of an organization

In addition to specific actors and their relationships in the inter-organizational network, a host of environmental forces impinge on participants in the environment. These external forces will have effects throughout the network, yet analysis of the network itself is unlikely to reveal them. Thus, to fully appreciate organization–environment relations you need to track conditions and trends in the environment in addition to doing an inter-organizational network analysis. This analysis typically begins by subdividing the environment into the **sectors** shown in Figure 3.4.

The **social sector** of an environment is associated with class structure, demographics, mobility patterns, lifestyles, social movements, and traditional social institutions including educational systems, religious practices, trades, and professions. In the United States and Western Europe, aging populations, increasing workforce diversity, and professionalization of many types of work, including management, are all examples of recent trends affecting organizations operating in those parts of the world. Recent migrations of people from Central and Eastern Europe and North Africa into the wealthier nations of Western Europe are examples of social mobility patterns in the environment of organizations operating in these areas. Recycling illustrates a social movement present in many countries around the world.

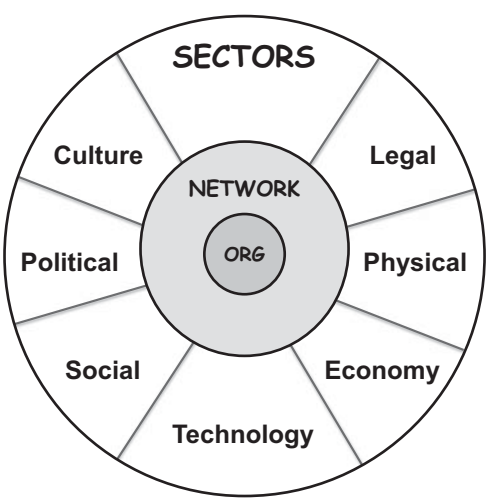

Figure 3.4 Sectors of the environment

Be sure to track all environmental conditions and trends that might influence the survival and success of your organization. Typically this is made easier by carving the environment into sectors and then monitoring their influences on each other, on the network, and on the organization of interest.

Concern with the **cultural sector** revolves around issues such as history, tradition, normative expectations for behavior, beliefs, and values. Examples of conditions in the cultural sector for Western firms include emphasis on leadership, technical rationality, and material wealth, while cultural sector trends in these parts of the world show decreasing value for hierarchical authority and increasing value for ethical business practices, human rights, and protection of the physical environment. Be sure to notice how social and cultural trends intersect. For instance, the increasing diversity found in many workforces shows up as a change in values for the contributions that differences of gender, race, and cultural background bring to organizations. These value shifts, in turn, influence the legal and political sectors.

The **legal sector** is defined by the constitutions, laws, and legal practices of nations in which an organization conducts its business. It involves such matters as corporate, antitrust (anti-monopoly), tax, and foreign investment law. Examples of trends in the legal sector are often difficult to separate from trends in the political and economic sectors. For instance, trends involving both the regulation and deregulation of industries are of major concern for affected organizations. The legal sector has close links to social and cultural trends because cultural values and social institutions create pressures to legalize various behaviors, or to declare them illegal. For example, heightened concern over unethical behavior by US businesses led to the passage of the Sarbanes-Oxley Act in 2002. This piece of legislation created mechanisms to expose and punish acts of corporate corruption, promote greater accountability by financial auditors, and protect small investors and pension holders. You can easily see how Sarbanes-Oxley arose from activities within both the political and economic sectors.

The **political sector** is usually described in terms of the distribution and concentration of power and the nature of political systems (e.g., democratic vs. autocratic) in those areas of the world in which the organization operates. The renunciation of communist rule across Eastern Europe in 1989 is an example of significant change in the political (and economic) sector of organizations doing or seeking to do business in this region of the world. The political sector has close ties with the legal sector and both are influenced by trends in other sectors. For example, in the US women and minorities have become more politically active since their entry into the workforce (social sector), and their increased political participation (political sector) has resulted in affirmative action, anti-discrimination, and anti-harassment legislation (legal sector).

Sometimes the political and economic sectors are so intertwined that it does not make sense to try to analyze their influences separately. For example, many governments (political sector), under pressure from businesses (economic sector), have relaxed trade barriers via trade agreements with other countries that reduce national autonomy, as has happened in relation to free trade zones. Economically driven political alliances such as the EU, ASEAN, MEROCUR, and NAFTA further erode national autonomy in favor of supporting the free flow of trade in various regions of the world. Similarly, privatization has made businesses out of organizations that were formerly run by governments including prisons, hospitals, airlines, schools, and universities. These and other transfers of power from political to business leaders bring political and economic sectors closer.

The **economic sector** is comprised of labor and financial markets, and markets for goods and services. The extent to which private versus public ownership prevails, whether or not centralized economic planning is attempted, fiscal policies, consumption patterns, patterns

of capital investment, and the banking system all contribute to shaping the economic sector. Examples of economic conditions commonly found in this sector include: the balance of payments, hard currency issues, economic alliances with other countries, trade agreements, price controls, access to raw materials markets, interest and inflation rates, price indexes, unemployment rates, excess production capacity, and investment risk. Economic sector trends have implications for the other sectors of the environment. For instance, the shift from a communist planned economy to democratic capitalism in Poland (a political-economic sector change) had implications for every other sector in the environment of organizations operating in Poland.

The **technology sector** provides knowledge and information in the form of scientific developments and applications that organizations can acquire and use to produce outputs (goods and services). In a sense, the environment possesses the knowledge to produce desired outputs and contributes this knowledge to various organizations that then carry out production processes for the benefit of at least some other part of the environment. Such knowledge takes the form of educated employees, equipment and software, and services provided by consultants and other professionals. A significant recent trend in the technological sector of many organizations has been the availability of computer-based technologies such as personal computers, robots, video-recording equipment, computer-aided design and manufacturing (CAD-CAM), and social media. Applications of these technologies are creating enormous changes in organizations around the world, such as organizations doing an increasing proportion of their business online. Trends indicate many new technological advances forthcoming from the fields of genetics, subatomic physics, and fiber optics.

There are endless examples of ways in which the technological sector intertwines with other sectors of the environment. Software pirating, reverse engineering, and theft of copyrighted material become easier with digitalization, a trend that began in the technological sector and has spread to the legal and economic sectors in the form of threats to intellectual property rights. Satellite communication replaces some travel and connects previously remote places in Africa, Latin America, Asia, and elsewhere to the global economy. Computer technology inspires shifts in organizational forms and practices such as virtual organization and outsourcing. Businesses now operate 24/7, partly as a result of advances in global communication technology that have affected cultural expectations for access and responsiveness. Changes in the technological sector affect the social and economic sectors as technology creates further socio-economic divisions between those who have electricity and can read, and those who do not read or have no access to electrical power.

The **physical sector** includes natural resources and the effects of nature. Some organizations have direct and immediate concerns with physical sector elements ranging from coal and oil reserves (e.g., firms operating in the oil industry), accessible harbors (e.g., firms in import/export trades or those operating shipping companies), viable transportation routes (e.g., trucking companies), and pollution levels (e.g., manufacturing concerns), to severe weather conditions (e.g., firms in the air transportation, shipping, construction, and tourism industries). Examples of general conditions and trends worth watching in the physical sector include changing weather patterns (e.g., global warming), the disappearance of rainforests, and disasters such as drought, earthquake, flood, famine, and volcanic activity.

Except for the case of dwindling natural resources, changes in the physical sector are extremely difficult to predict. Nonetheless, firms that depend on this sector for resources or

favorable working conditions will obviously be economically affected by events and changes that occur here. Disasters such as earthquakes can have more than economic impact. For example, changes in attitudes and values about safety issues following earthquakes (cultural sector) often initiate changes in building codes (legal sector) that stimulate the development of new building techniques (technical sector). Of course other sectors influence the physical sector as well, such as when population growth or migration (social sector) taxes the physical resources of regions where settlement occurs.

Many more examples of sectors could be given, of course, and thinking of others will help you develop these concepts in your own terms. Don't forget that the usefulness of this, or any other organization theory you read about in this book, will depend upon your elaborating it with specific information based on your knowledge and experience. Also bear in mind that although you can separate the environment into sectors as we have done here, the sectors do not evolve independently. Their interdependence will always give rise to additional considerations as conditions change or trends develop.

The model of environmental sectors presented in Figure 3.4 is only meant as a stimulus to your analysis, not a rigid solution. After you become familiar with its categories and notice their independence, you may find that you prefer to use only five or six sectors for a particular analysis. For instance, collapsing the social and cultural, or political and legal categories may make sense, or you may want to expand the model to include new sectors. You should feel free to treat this and all other theoretical models as templates that can be changed to suit the purposes of analysis, but do not alter them just to avoid facing a tough problem, such as not having the data to do a full analysis readily at hand! When a theory indicates you are missing information, take note of the absence and raise it as a question for further study.

Internationalization, regionalization, and globalization

As soon as organizations start interacting across national borders their **internationalization** generates new levels of environmental complexity with consequences for the organizational level. For example, as organizations in regions such as the Pacific Rim or Central and Eastern Europe (CEE) broaden their scope of activity to embrace the entire region, regional markets form, often attracting business from even further afield, resulting in increased competition for all but also greater availability and variety of products and services, and often lower prices to the end user, to name a few of the effects internationalization brings with it.

Regionalization occurs alongside internationalization when governments sponsor programs and legislation, such as the North American Free Trade Agreement (NAFTA). Regionalization has organizational level effects, which can be seen for example in the growth of Mexican maquiladoras. Maquiladoras are plants where parts imported from foreign markets are assembled into products that are then shipped back to the original markets. Often operating just inside Mexico's border with the US, the locations of these organizations inside a designated zone grants them special tariff status that reduces their costs and makes them highly competitive.

As changes within regions and internationalizing organizations take hold they create knock-on effects around the world as regions and their organizations interact to produce economic globalization. But globalization moves well beyond the economic sector because

conditions and trends from other sectors converge on international organizations operating within various regions. This globalization affects all areas of life with consequences for people and organizations everywhere. Table 3.1 shows some of these influences categorized by sectors.

Globalization typically refers to the exchanges and relationships established between organizations and their networks that render existing borders and boundaries between them (such as those dividing nation-states or economic partnerships) permeable or irrelevant.[4] Globalization means recognizing the new level of complexity and interdependence depicted in Figure 3.5.

Table 3.1 Contributions of environmental sectors to global complexity and change

Sector	Contribution to global change
Technology	Personal computers The Internet and WIFI Digital cameras and HDTV Smartphones and social media Communication satellites Rapid transit trains, supertankers Space exploration
Economic	Global capital markets Technology exchanges Worldwide trade Transnational corporations International economic institutions (e.g., IMF, World Bank, WTO) Regional trading systems and global retailing
Political/Legal	Breakdown of the authority of the nation-state Erosion of territorial borders Global governance institutions (e.g., UN, WHO, World Court)
Social/Cultural	Global media coverage Popular culture (e.g., slang, fashion, brands, TV, music, tourism) English as global language of science, politics, and business Materialism and consumerism Multi-racialism, multi-culturalism, multi-lingualism Social media (e.g., chatrooms, Facebook, Twitter)
Physical	Population growth Loss of biodiversity Hazardous waste and industrial accidents Global warming and climate change Pollution Disease and food insecurity Genetically modified (GM) foods

Source: Based on Steger (2003).

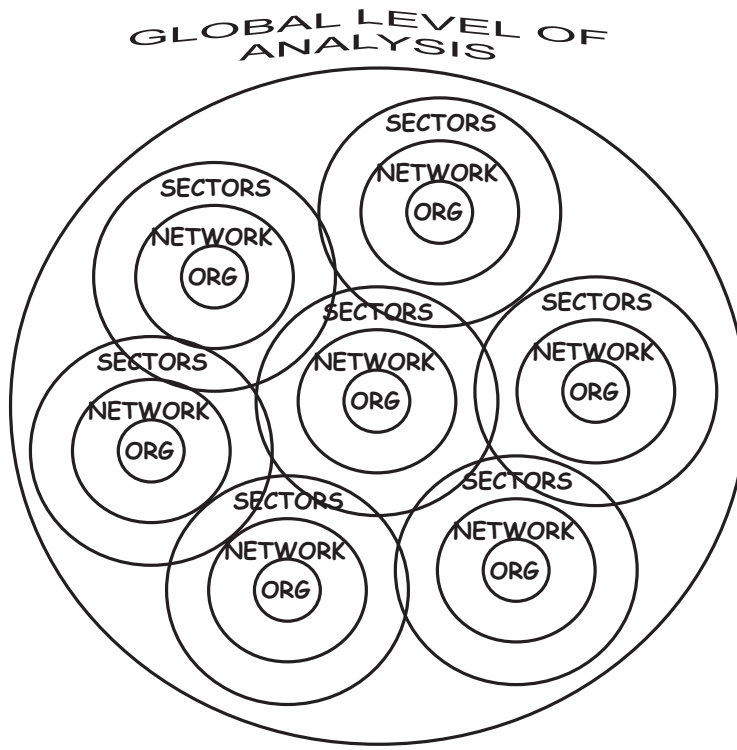

Figure 3.5 One way to picture globalization

This figure maps the growing interdependence among organizations, their networks, and environmental conditions and trends leading to globalization. Notice this model depicts four levels of analysis, the organization (ORG), its inter-organizational network (NETWORK), conditions and trends in sectors affecting all members of an environment (SECTORS), with the global level emerging from the multiple interacting lower level systems.

To see how complex and interrelated globally convergent trends can be, consider the example of cultural homogenization. Examples of this widely recognized phenomenon include English as the accepted language of business, science, and the Internet, easy access to fast food, and the wearing of blue jeans, T-shirts, and training shoes. As homogenization signals the loss of local customs and traditions, those who desire to maintain the old ways respond by asserting communal affiliations, such as supporting other trends, for example religious fundamentalism. Thus cultural homogenization contributes to both appreciation and fear of cultural diversity with multiple effects; in some quarters diversity encourages appeals for democratically inspired self-determination and individual freedom, while in others it inspires religious warfare and ethnic cleansing. And this represents a brief analysis of only one segment of the globalizing environment.

As globalization unfolds amidst all these interacting forces, organizations created explicitly to operate on the global stage appear and push global interdependence further along. These include the United Nations (UN), the World Trade Organization (WTO), the World Health Organization (WHO), the International Monetary Fund (IMF), and the World Bank, not to

mention numerous NGOs (nongovernmental organizations) such as the International Red Cross, Doctors Without Borders, and Greenpeace. You may be surprised to hear that some of these organizations are quite old, for example the Red Cross was founded in 1863. Of course the path to globalization dates back at least to the Silk Road that opened between Europe and Asia sometime around the second century BCE.

The complexity of the level of analysis on which the concept of globalization rests can boggle the mind. Don't get too carried away by being able to model this complexity in abstract terms. While analysis using abstract models like the one in Figure 3.5 will increase your awareness of the many important influences an organization faces, you will probably never be able to identify and track them all or put the whole complex puzzle together in a meaningful way. There are too many moving parts to keep up with all their changes even if you could get your head around so many concepts at once.

At its best, analysis using abstract models will make you aware of the risks of not understanding everything that affects an organization, and encourage you to keep observing and learning. Use multiple levels of analysis to imagine what interactions among parts of the complex environment surrounding an organization will reveal *in relation to the purpose of your analysis*.

Modern theories of organization–environment relations

By the late 1970s most modernist organization theorists and managers had taken the importance of the environment to heart, and interest shifted to explaining how environmental influence operates; thus the first theories of organization–environment relations came into being. Three of the most influential of these came out of the modern perspective: environmental contingency theory, resource dependence theory, and population ecology. A fourth—institutional theory—will be presented in the section on institutional theories of organization–environment relations to honor its contribution to the symbolic perspective.

Environmental contingency theory

British sociologists Tom Burns and George Stalker, along with American organization theorists Paul Lawrence and Jay Lorsch, were among the first to argue that the environment dictates the best form of organization to use. To explain this relationship between environment and organization, Burns and Stalker theorized that in stable environments the **mechanistic** form of organization works best because of the efficiencies it can generate using standard procedures to perform routine activities.[5] Under stable environmental conditions organizations can learn to optimize their activities and use of resources so as to minimize costs and maximize profit.

When environments are rapidly changing, however, the advantages of mechanistic organization are lost. The profitability routinization brings soon disappears when the organization must constantly alter its activities in order to adapt. The flexibility of **organic** forms of organization is better adapted to a changing environment because it supports needed innovation and adaptation. Burns and Stalker's explanation of when to use mechanistic versus organic forms of organization is an early example of contingency theory, the contingency being, in their case, the set of environmental factors the organization in question faces.

Early contingency theorists presented **environmental uncertainty** as the key variable explaining why particular forms of organization were successful, and uncertainty in the environment was defined as the interaction between complexity and rate of change (see Figure 3.6). **Complexity** refers to the number and diversity of the elements of environment, while **rate of change** refers to how rapidly the environment including all of its elements is changing.

The problem with early environmental uncertainty theory was that it assumed that conditions in the environment were objectively real. Studies showed, however, that everyone does not experience an environment in the same way; the same environment might be perceived as certain by one set of managers but be described as uncertain by another. Researchers concluded that **perceptual uncertainty** predicted decisions about the form of organization adopted better than did objective measures of environmental uncertainty.[6]

In modern organization theory this evidence of the importance of perceptions as a moderating factor in understanding how environments affect organizations developed into an information theory.[7] The **information theory of uncertainty** argues that managers experience uncertainty in the environment when they lack the information they feel they need to make sound organizational decisions. Figure 3.7 specifies the links between perceived environmental conditions and information that explain different levels of perceived uncertainty.

In Figure 3.7 managers see environments as stable and as having minimum complexity when the information they need is both known and available; when this occurs they perceive and report low levels of environmental uncertainty. Managers recognize environments to have either high complexity or to be rapidly changing when they confront either too much information or constantly changing information, in which case moderate levels of uncertainty are experienced. Managers perceive a highly complex and changing environment when they face an overwhelming amount of information that is constantly changing; under

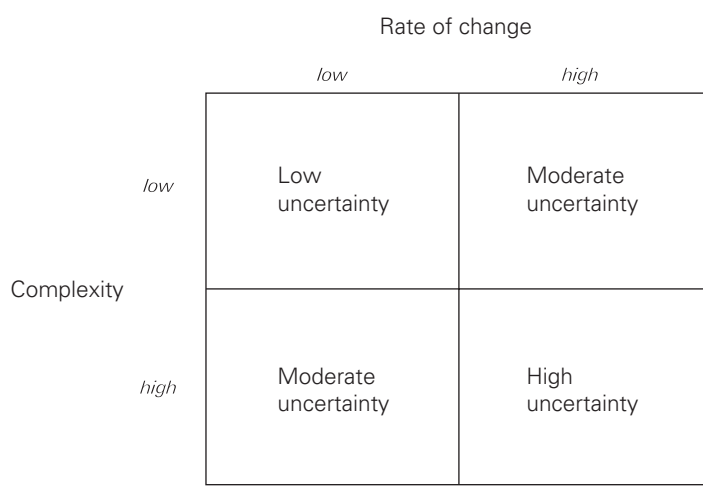

Figure 3.6 Environmental uncertainty is defined by the complexity in and the rate of change of the organization's environment

Source: Based on Duncan (1972).

these conditions their uncertainty is greatest. This is because when managers don't know what information they need and are confronted with an overabundance of information, uncertainty reaches its highest levels. Think about the rate at which YouTube video is produced. Current estimates are that 60 hours of video are uploaded to this website every minute, and the rate is increasing. If you needed to analyze the content of all this video to make a decision about how to organize your company, and you perceived these facts about YouTube as negatively affecting your ability to perform your analysis, you would likely find yourself in a state of high uncertainty.

Another early effort to explain how organizations respond to uncertainty relied on the concepts of requisite variety and isomorphism. The **law of requisite variety**, borrowed from general systems theory, states that for one system to deal effectively with another it must be of the same or greater complexity. In organizational terms this means that successful organizations map perceived environmental complexity with their internal structures and management systems. The mapping results in **isomorphism**: if the environment is simple, the organization takes a simple form; complex environments favor complex organizations. When environments are changing, of course, the concepts of isomorphism and requisite variety suggest that organizations will change as well.

American organization theorists Paul Lawrence and Jay Lorsch discussed the implications of isomorphism in their 1967 book *Organization and Environment*. They suggested that organizations confront many different conditions and elements in their environments, which creates pressure for differentiation inside the organization. Differentiation allows different units of the organization to specialize in handling different demands from the environment. These specialized functions produce internal complexity in organizational structures that allows them to map complex environments. But it also produces pressure to integrate across the differentiated tasks and this adds structural complexity in the form of higher-level managers to coordinate the expanding units and responsibilities within the organization.

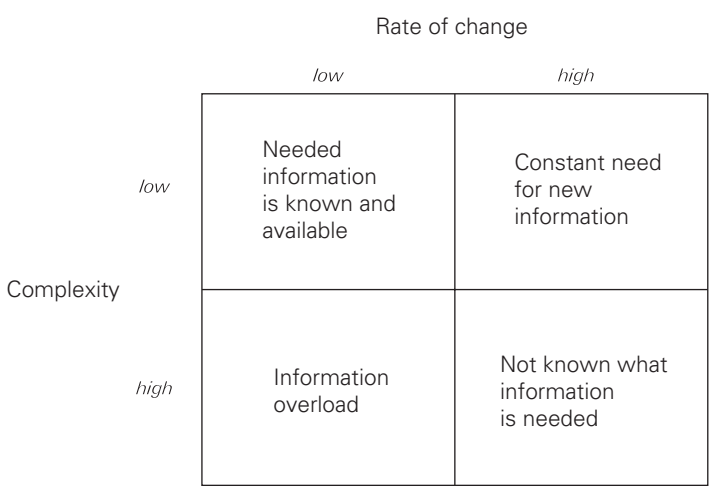

Figure 3.7 Links between conditions in the perceived environment and information that contribute to uncertainty in organizational decision making

Resource dependence theory

Resource dependence theory was most fully developed by American organization theorists Jeffrey Pfeffer and Gerald Salancik who published their ideas in 1978. Their book was provocatively titled *The External Control of Organizations* to emphasize their theory that the configuration of the environment is a powerful influence on management strategy and organizational structure.

The basic argument of resource dependence theory is that an analysis of the inter-organizational network can help an organization's managers understand the **power/dependence** relationships that exist between their organization and other network actors. Such knowledge allows managers to anticipate likely sources of influence from the environment and suggests ways in which the organization can offset some of this influence by creating countervailing dependence for others.

An organization's dependence on its environment is the result of its need for resources such as raw materials, labor, capital, equipment, knowledge, and outlets for its products and services—resources that are controlled by the environment. The environment derives power over the organization from this dependence, which it uses to make demands on the organization for such things as competitive prices, desirable products and services, and efficient organizational structures and processes. However, the dependence of the organization on its environment is neither singular nor undifferentiated. A complex set of dependencies arise between an organization and the specific elements of its inter-organizational network as shown in Figure 3.8.

Resource dependence analysis begins by identifying the resource inputs and outputs of the organization. Next trace the resource flows to where they begin and follow the outputs to their end users. For example, firms that provide raw materials and equipment will be found among the organization's suppliers, while tracing the organization's outputs will identify specific customers in the network. Tracing suppliers of labor, capital, and knowledge will identify still other network actors such as employment agencies, universities, financial

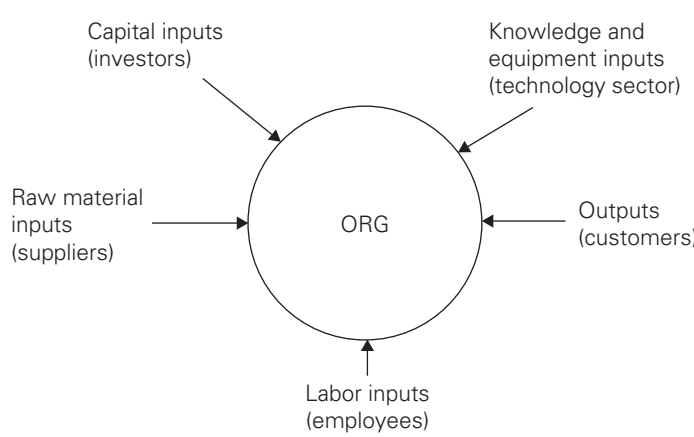

Figure 3.8 Applying resource dependence theory

Trace your organization's resources to their sources using this extended model of the inter-organizational network.

intermediaries, and think tanks. Competition over raw materials, customers, and employees can be other sources of potential resource dependence, so be sure to bring key competitors into your analysis. Any government agencies or lawmakers whose policies or practices regulate your organization's exchanges with the environment should be included (e.g., labor law, consumer protection agencies, trade regulators). And don't forget special interests, people or groups that attempt to influence the activities of the organization via political, economic, and/or social pressure. Examples of special interests include unions and nongovernmental organizations (NGOs).

In practice it will be impossible to consider every source of dependence an organization faces or every potential competitive, special interest, or regulatory move, so after specifying sources and destinations of resource inputs and outputs among the actors of the organization's inter-organizational network, resource dependence analysis moves to prioritizing responses to these dependencies. Prioritization involves assessing the criticality and scarcity of the resources involved. Assessing resource **criticality** provides a measure of the relative importance of a particular resource. For instance, beef is a critical resource for McDonalds, whereas drinking straws are not. Assessing **scarcity** provides an indicator of the risk of not being able to procure a critical resource. Gold, platinum, and uranium are scarce, as is water in a growing number of regions. Resources that are both scarce and critical are prioritized and a plan of action for tracking and managing these dependencies is developed.

Managing resource dependence calls for imagination with respect to balancing the power of others by developing countervailing power within your own organization. Pfeffer and Salancik described numerous ways organizations do this. Establishing multiple sources of supply helps manage dependence by reducing the power of any one supplier. Where there are benefits to using a limited number of suppliers, such as with supply chain management, contracting is a common strategy for managing dependency. Creating joint ventures with customers or suppliers or acquiring or merging with them (called vertical integration), or forming alliances or merging with competitors to concentrate negotiating power over suppliers and customers (called horizontal integration) are additional strategies. All aspects of marketing—sales, advertising, distribution, branding—can help an organization to manage dependencies on consumer purchases. Corporate image campaigns will help counteract negative public opinion or critical reports in the media.

Labor and knowledge dependencies can be managed with recruitment strategies for attracting talented personnel. A common strategy for managing regulatory dependencies is to send lobbyists to influence legislators to vote for advantageous trade agreements, favorable corporate tax laws, or government funding of research and development. Trade association membership can prove beneficial too, as it enables members to share the costs of monitoring conditions and trends in the environment and pools their influence, not just in hiring lobbyists, but also through category marketing. Of course trade associations are open to criticism and even legal action if they are not careful to guard themselves against price fixing and other unfair or illegal business practices. In societies in which price fixing is not outlawed, price agreements and cartels such as OPEC are common means of managing environmental dependence between competitors.

If other strategies fail, the organization can release itself from unwanted dependency by changing its environment, as when an organization enters or exits a line of business or alters its product/service mix through diversification or retrenchment, joint ventures, spin-offs,

mergers, and acquisitions. Population ecology theory also sometimes leads to a recommendation to flee a non-supportive environment, though it pitches its theorizing at a different level of analysis.

Population ecology

Both resource dependence theory and population ecology assume that dependency gives the environment considerable power over the organization. However, whereas resource dependence theory is rooted in the organizational level of analysis, population ecology focuses the bulk of its attention on the environment. What interests population ecologists is not how one particular organization procures its own survival via competition for scarce and critical resources (as in resource dependence theory), but the patterns of success and failure among all the organizations that compete within a given resource pool, called an **ecological niche**.[8]

Population ecology as it applies to organization theory derives from the influential British naturalist Charles Darwin's principles of evolution—variation, selection, and retention—and his theory that these processes explain the dynamics of natural selection within a species of animal observed over time. Among those who applied these ideas to organizations were American organization sociologists Michael Hannan, John Freeman, Howard Aldrich, and Glen Carroll.[9] Their theories explain how competitive ecological processes result in the variety of organizational forms we see around us today, thus for them economic competition is a form of natural selection.

In population ecology theory the environment of an organization selects from a group of competitors those organizations that best serve its needs. As in Darwin's theory, variation, selection, and retention explain the dynamics of natural selection within a **population** of organizations. **Variation** occurs primarily through entrepreneurial innovation that results in new organizations and through the adaptation of established organizations as they respond to new threats or opportunities in their environments. Variation processes provide diversity to the selection process.

Selection occurs as organizations that best fit the needs and demands of their ecological niche are supported with resources, while those that do not meet the criterion of fitness starve. Non-selection does not always necessitate organizational decline and death. It can also lead to flight from an existing environment and/or finding a different resource niche to inhabit (e.g., exiting a business that does not have long-term profit growth potential, entry into new businesses). Flight feeds back into variation by producing organizational adaptations such as downsizing, spin-offs, mergers, acquisitions, and new business development.

Retention means that resources are continuously fed to the organization; thus achieving and maintaining fitness equals organizational survival in the short run. However, change in environments demands continual adaptation so that retained organizations need to take part in further variation, which explains the intense interest of many long-lived organizations in innovation, merger and acquisition strategies, and new business development.

Studies of population ecology have focused, for example, on competition in populations of restaurants, newspapers, small electronics firms, day care centers, breweries, and labor unions and reveal the birth and death rates among organizations operating within these populations.[10] They also identify the forms and strategies that the most successful organizations

within the population studied adopted (e.g., being generalists with many lines of business serving multiple markets, or specialists devoting attention to one line of business or to serving a single market).

Some find population ecology theory difficult to apply to management because its level of analysis lies outside the organization's boundary and thus largely outside its control. Nonetheless, the viewpoint offered by this theory is often useful when communicating with members of government or regulatory agents whose perspective is normally defined by the environmental level of analysis due to the large numbers of organizations their policies affect. If you belong to these types of organization, you will likely feel more comfortable with the recommendations of population ecology than with those of resource dependence theory.

There are other issues to consider in applying population ecology theory. First, as with Darwin's theory, the definition of fitness is a problem—survival is explained by fitness, but fitness is defined as survival—this central tautology means you cannot predict survival on the basis of an independent assessment of fit; you can only recognize it once it has occurred. Second, the theory applies most readily to populations that are highly competitive and not all populations conform to this requirement. Populations dominated by a few large organizations, or facing significant barriers to entry or exit such as high start-up costs (e.g., automobile manufacturing) or complex legal regulation (e.g., pharmaceuticals) do not make ideal candidates for the application of population ecology theory. In these circumstances the institutional view often proves more useful.

Symbolic environmental analysis

Those adopting the symbolic perspective view the environment as a social construction arising from and in enactment, cognitive mapping, and sensemaking processes. Interpretation is a factor in all social construction processes, as are the symbols that invoke and carry meaning within them. Environments emerge from intersubjectively shared symbolism and beliefs about the environment; and by expectations set in motion by these symbols and beliefs. Just as for modernists, environments constituted by social construction have material consequences for those adopting the symbolic perspective. These consequences arise from organizational members' cognitions and feelings about the features of the environment they attend to and to which they respond. Different organizations construct their environments differently, and the same organization will change its behavior in response to its environment when its constructions change.

For institutionalists, actors are often unwitting dupes of environment level systems that form institutional fields. Institutional fields organize actions and activities within an environment, whereas for enactment theorists environments are constructed through the social interactions and relationships arising between individual actors and from their actions. Different levels of analysis give these two views their quite different positions within symbolic organization theory, just as different levels of analysis differentiate resource dependence and population ecology theory within the modernist perspective. Structuration theory occupies a position that does not privilege one analytical level over the other, nor does it choose between the modern or symbolic perspective, but I will wait to present this theory until we develop the concept of organizational social structure.

Institutional theories of organization–environment relations

Institutional theory argues that, not only do organizations require raw materials, capital, labor, knowledge, and equipment, they also depend upon the acceptance of the societies in which they operate. This idea inspired modernist organization theorists to add social legitimacy to the list of inputs depicted in the open systems model of organization, as shown in Figure 3.9. This addition granted the symbolic perspective an inroad into organization theory by virtue of its acknowledgment of the importance of human values.

Elaborating on Selznick's idea that organizations adapt to and express the values of their society, American sociologists Paul DiMaggio and Woody Powell argued that 'organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness.'[11] In other words, environments place demands on organizations in two distinguishable ways: (1) they may make technical, economic, and physical demands that require organizations to produce and exchange their goods and services in a market or a quasi-market, and (2) they may make social, cultural, legal, or political demands that require organizations to play particular roles in society and to establish and maintain certain outward appearances. Environments dominated by technical, economic, and/or physical demands reward organizations for efficiently and effectively supplying the environment with goods and services, while environments dominated by social, cultural, legal, and/or political demands reward organizations for at least outwardly conforming to the values, norms, rules, and beliefs upheld by social institutions, such as government, the law, religion, and education. The reward for conformity to institutional influence is social legitimacy, and social legitimacy can be as much a boon to survival as any other input to the organization's transformation process.

Recognizing the socio-cultural and politico-legal bases of environmental influence on organizations raises the question: Who or what directs this influence? According to American institutional sociologist W. Richard Scott, aspects of the organizational environment through which institutional influences operate include: regulatory structures, government agencies, laws and courts, professions, interest groups, and mobilized public opinion.[12] But how do institutional agents such as these do their work?

Neo-institutionalists ('neo' because they no longer strictly follow Selznick) move well beyond mere recognition of legitimizing institutional foundations to describe the processes

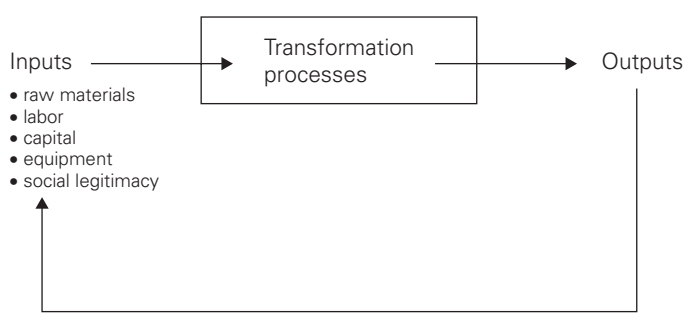

Figure 3.9 Social legitimacy as an organizational resource

Institutional theory suggests that social legitimacy be considered an input to the organizational transformation process along with raw materials and other resources upon which this process depends.

by which organizations and their repeated activities become institutionalized. For instance, Scott defined institutionalization as 'the process by which actions are repeated and given similar meaning by self and others.'[13] Thus, not only can government, religion, and education be conceptualized as institutions, but so can actions such as voting, bowing to show respect, or shaking hands, or in organizations such things as recognizing authority, following routine, or adopting the latest management fad.

The idea of institutions as repeated actions and not just shared meanings or conceptions of reality, gives social construction explanatory power (notice that this formulation amounts to a concession to the modernist perspective). When shared meaning becomes crystalized in repeated actions, such as when expectations of repeated actions are transformed into rules or laws, then institutions such as governments and courts can be regarded as agents; they are transfigured into institutional actors, just like any other organized entity.

Different institutional mechanisms support repeated action. Powell and DiMaggio identified three: coercive, normative, and mimetic.[14] When the pressure to conform to expectations comes from governmental regulations or laws, then **coercive** institutional pressures are at work. When conformity pressure comes from cultural expectations, for instance via the education or religious beliefs of organizational members, then **normative** institutional pressures are at work. Conformity in service to gaining legitimacy by looking like a successful organization rather than being one (e.g., Selznick's interpretation of the TVA) is a response to **mimetic** institutional pressures. These days mimesis has become the normative activity of **best practice**, which involves copying the structures and practices of successful organizations. This strategy often emerges among organizational decision makers when uncertainty about how to succeed is high.

The most important implication of institutional theory for organizations is that conforming to institutionalized expectations wins social support and ensures **legitimacy**, which enhances the prospects for an organization's survival. Legitimacy is not granted because an organization makes more money or produces better products or services, but because it goes along with accepted conventions.[15]

Often certain structural characteristics, such as bureaucracy in government, or matrix structures in the defense industry, become institutionalized standards by which organizations are judged as appropriate and thus granted social legitimacy regardless of their performance. This is one way to explain how extant beliefs like the 'too big to fail' argument invoked on behalf of big banks during the 2008 financial crisis, were never objectively tested. Because everyone accepts such beliefs as 'true,' there is no reason to question them; they have become the stuff of **institutional myth**.

Once an organization has learned how to look good (e.g., to look like a rational organization), it need do only face work to attract the other resources it needs to survive (including technical support and financial backing), which allowed institutionalized organizations like the TVA, or big banks in the financial crisis, to appear legitimate while behaving in ways that were decidedly not. The lack of any objective criteria by which to judge an organization's performance means that institutionalized organizations are not accountable to society except in a very superficial sense.

Obviously there are limits to what institutionalization permits. Public outcry against unethical business practices not only threatens an institution's survival, it can kill the institution outright. For example, in the late 1990s Enron (US), Arthur Anderson (US), and Parmalat

(Italy) all failed as the result of public scandals, and at the start of this century AIB and Lehman Brothers fell when they were perceived as having violated corporate ethics. Freddie Mae and Freddie Mac, the US government sponsored enterprises that provide a secondary market for trading mortgages, though not destroyed, were seriously threatened and have yet to recover from their severe losses of legitimacy when they were implicated in the 2008 financial crisis. Human and animal rights activists as well as environmental protection groups offer other examples of environmental forces able to de-legitimize organizations and sometimes entire industries (e.g., the fur trade) through mobilization of public opinion and direct action such as boycotts, demonstrations, letter writing, and e-mail, blog, Facebook, or Twitter campaigns.[16] These examples reveal the importance of social legitimacy by showing what can happen if it is threatened or withheld.

In applying institutional theory to an analysis of a particular organization you should consider how the organization adapts to its institutional context. For instance, analyze the sources (e.g., regulatory agencies, laws, social and cultural expectations) and types of institutional pressure (e.g., coercive, normative, mimetic) exerted by the environment on the organization. Also consider how decision-making processes are being shaped by institutional myths that may hide institutional forces behind a mask of technical rationality. Finally, try to imagine how the organization might gain greater legitimacy within its institutional context and what risks accompany such efforts.

The enacted environment

According to enactment theory, while organizational members may assume the environment is objectively reflected in the data they use for its analysis, analysis itself creates the environment to which their organization responds. Enactment theory reaches beyond the modernist information theory of perceived uncertainty. Instead of arguing that complexity and change challenge organizational decision makers with an increased need for information, enactment theory maintains that when decision makers respond to their perceptions, they enact the environment they imagine and anticipate.[17]

Along the lines of the information theory of uncertainty, cognitive organization theorist Karl Weick started from the assumption that, regardless of belief in the existence (or not) of an objectively real environment, conditions in the environment cannot be separated from perceptions of those conditions. But Weick blended this idea with social construction theory to suggest that if organizational decision makers assume the environment is real, they will gather and analyze information in order to create accurate forecasts and make rational decisions. If decision makers perceive the environment as complex and unanalyzable, then more data, and approaches to managing the environment based upon them, will be used.

Acting on constructed complexity enacts a complex environment as databases grow making analysis of an ever-growing database more and more uncertain. In this enacted world, people interpret uncertainty as a lack of information that they attribute to environmental complexity and change, but complexity and uncertainty arise from their efforts to monitor and control the environment. This paradoxical situation offers opportunities to organizations as well as challenges to decision makers. For example, Steve Jobs of Apple Computer interpreted the perceived complexity and rapidly changing context of computer technology

applications in a unique way that can be interpreted as an enactment of a world in which smartphones and tablets have become part of everyday life everywhere.

It is important to understand how enactment can accommodate material reality, as this constitutes the main difference between the symbolic and modern perspectives. This may be easiest to explain in reference to the cult film classic *The Gods Must Be Crazy*. The story begins when someone flying in an airplane passes over a remote village inhabited by a primitive tribe. When a Coke bottle from the plane is inadvertently dropped into their midst, tribe members, having no idea what it is, nonetheless find many uses for it (e.g., rolling pin, hammer, ant collector). They eventually find this 'new technology' so indispensable they start fighting over it. Their chief, demonstrating great wisdom, throws the bottle away and soon the tribe resumes its former peaceful existence.

Just so, according to enactment theory, we generate complexity with alluring material such as that which technology offers. Consider, for example, how smartphones carrying Facebook apps revolutionized social action during the Arab Awakening. The flash mob movement of the West that preceded these and other recent political actions may have seemed innocuous at the time they arose, but they helped enact a technologically supported trend for grass roots political action that emerged a world away, and that will have more consequences as the lessons learned by those engaging in these movements enable a sharing of knowledge and ideas enacting further developments.

A corollary to Weick's enactment theory can be found in his concept of **equivocality**. According to Weick, humans equivocate when they multiply perceived possibilities that they then use to enact contradictory realities, which in turn promote further equivocation. Equivocality leads to experiences of uncertainty and to the closely related concept of **ambiguity**. To explore how ambiguity not only challenges but can also benefit organizations, particularly in terms of enabling adaptation to changing environments, political scientists James March (American) and Johan Olsen (Norwegian) argued for defining organizational ambiguity as: 'a strategy for suspending rational imperatives toward consistency [to help organizations] explore alternative ideas of possible purposes.'[18]

Eric Eisenberg, an American communication theorist, expanded on March's ideas about ambiguity by pointing out that people sometimes purposely omit contextual cues and thereby introduce ambiguity into communication that encourages multiple interpretations.[19] Eisenberg claimed that by strategically encouraging multiple interpretations of goals and vision, managers can produce **unified diversity**, an idea that challenges notions of unity such as Gulick's concept of the unity of command, or Fayol's harmonizing notion of esprit de corps, without going as far as the postmodern desertion of all modern management principles.

American organization theorist Deborah Meyerson provided an example of unified diversity in her study of the ambiguities confronted by hospital social workers.[20] She found that social workers in the hospitals she studied shared a common orientation and purpose as well as performing similar tasks, but the ambiguity of their experience of doing social work in the tense and uncertain environment of the hospital resulted in their using different techniques to arrive at widely varied solutions to what would seem to be objectively similar problems. Intriguingly, she found that when a hospital's culture accommodated and supported the multiple and often conflicted meanings social workers associated with their practice, they experienced less burnout.

Scenario analysis, an approach to environmental analysis pioneered at Royal Dutch Shell, provides another illustration of purposeful ambiguity creation. Instead of carrying out a rational analysis of objective environmental conditions and trends, scenario analysis asks organizational decision makers to create narratives about different ways the future might unfold and then assess the likelihoods and risks of each. This may all seem pretty rational in a modern perspective, but consider that, as each scenario is produced, either via mental rehearsal or through play acting, decision makers are anticipating the organization's future.[21] This anticipation begins the process of making the environment real to its enactors, albeit ambiguously in the sense of defining multiple anticipations. Then again, sharing such an ambiguous future no doubt fraught with uncertainty, could produce enough discomfort to unify those involved behind belief in a single strategy for confronting the environment.

Postmodernism and organization–environment relations

One implication of enactment theory not normally taken up within the symbolic perspective is that, once we recognize our role as social constructors of reality, we can free ourselves from situations we do not like by deconstructing distasteful social constructions. Using this sort of thinking postmodernists push for radical change that begins with linguistic deconstruction of discourses and texts supporting an existing social construction, but which can end in material change. For example, some believe that postmodern ways of thinking led to the physical destruction of the Berlin Wall, as well as to all that this deconstruction symbolically represents today. Others see these ideas at work behind changes such as the Arab Awakening that has already brought down governments and rallied hopes for democracy, or in the Occupy movement.

The postmodern perspective often strikes an ethical chord, reminding us that the organizations and other socially constructed realities we inhabit ultimately reflect our values and choices. It politicizes the concept of legitimacy from institutional theory and borrows the agency of enactment theory, to move into entirely new philosophical territory that challenges both the symbolic, but most particularly the modern perspective.

Some postmodern organization theorists take as their departure point the history of industrialization from which organization theory emerged. They reason that, just as the modern period of industrialization forever changed the world, so too will postmodernism, so named to indicate what lies beyond the modern.[22] Following along the trajectory that originates in industrialization shows how postmodern organization aligns in many revealing respects with the post-industrial organizing practices that are redefining the contours of life today.

Three phases of industrialization

Tom Burns defined the trajectory of Western industrial development in terms of three distinguishable phases.[23] The first phase, which ushered in the factory system, grew out of the use of machines to extend and enlarge the productivity of work. The factory system offered an alternative to subcontracting, which was the way labor was organized in the craft-based economies that existed before factories appeared.

In subcontracting, groups of individuals, typically working under a master craftsman, contracted out for specific jobs. In factories, the subcontractor's role was replaced by that of the foreman who worked at the discretion of the factory owner, often directed by a general manager hired to protect the owner's interests. And even though the social status of both remained roughly the same, a foreman's responsibilities and freedoms were considerably less than those of a subcontractor. For example, while subcontractors were responsible for hiring and firing, assigning work tasks, and defining the pace of work, in a factory these responsibilities belonged to owners and their executives.

Industrialization's first phase got started in the British textile industry where collections of machines tended by feeders and by maintenance and repair workers were all located in a single place—the factory. The machines in these early factories were typically all of a single type and usually performed only one task in a simple, repetitive process. More complex tasks were still carried out using the older system of subcontracting among craft workers. While the maintenance workers and supervisors in the early factories were nearly always men, most of the machine operators were women who were, in turn, assisted by children. Thus in phase one of industrialization in Britain, gender relations in factories generally reflected gender relations in society. Typically, men had higher status and greater opportunity than women, while both men and women had greater status and opportunity than children, forming what most considered a natural hierarchy.

During the second phase of industrial development, which began roughly in the 1850s and 1860s, the factory system diffused into clothing and food manufacturing, engineering, and chemical, iron, and steel processing, all of which depended upon more complex production processes than those of the textile industry. According to Burns, the increased technical complexity of manufacturing operations demanded parallel growth in systems of social organization and bureaucracy with emphasis on control, routine, and specialization. These changes were reflected in substantial increases in the ranks of managers and administrative staff (e.g., professional and clerical personnel) and were accompanied by improvements in transportation and communication, freer trade, and growing public interest in the consumable products of industrial manufacturing. An armaments revolution also followed the development of machine tools and improvements in steel and chemical technology made possible by industrialization such that developments similar to those in industry were seen in the growth of national armies and governmental administrations.

It was the changes introduced in the second phase of industrialization that, according to Burns, attracted the attention of the sociologists whose ideas founded organization theory. For instance, Weber and Marx both predicted that industrialization would create a new middle class of managers, clerical workers, and professionals who would be employed in large, hierarchical organizations. These theorists also anticipated some of the problems the third phase of industrialization would bring, including gloomy projections concerning the iron cage of bureaucracy, and the greedy exploitation of resources and humankind that capitalism would unleash on the world.

Burns claimed that in the third phase of industrial development production would catch up with and overtake spontaneous domestic demand. Under these conditions, capitalism's dependence on economic growth leads to (1) enhanced sensitivity to the consumer and to new techniques for stimulating consumption (e.g., product development, design, consumer and market research, professionalized sales forces, advertising, branding), (2) the internationalization of

firms in search of new markets, and (3) new technological developments that increasingly occur within industrial firms via research and development activities. Burns believed that the convergence of these changes within organizations would lead to greater flexibility, a strong customer-orientation, international activity and hence internationalized identities, and constantly increasing technological sophistication. Similar ideas occurred to other observers of these changes.

According to American futurist Alvin Toffler in his 1970 book *Future Shock*, a good way to envision the significance of social transformation initiated by computer and telecommunications technology is to compare it to the transformation of agricultural into industrial societies brought about by industrialization. American sociologist Daniel Bell gave these new developments the name **post-industrialism** in his 1973 book *The Coming of Post-industrial Society*, where he argued that, whereas industrial societies are organized around controlling labor for the production of goods, post-industrial society is organized around the creation of knowledge and the uses of information. Emphasis on information led Bell, among others, to predict the rise of the service sector and the decline of manufacturing, with knowledge workers (technical specialists and other professionals) joining capitalists as the most powerful members of society. Globalization, in this view, was an expression of the newfound ability to instantaneously share information and knowledge around the world.

Another correlate of post-industrialization, initially remarked by American futurist John Naisbitt in his book *Megatrends*, is the abandonment of hierarchies in favor of communication networks with a consequent shift from vertically to horizontally structured organizations. Discussions of post-industrial organizations, or post-bureaucratic where public organizations were in focus, typically involved comparisons of the forms of work and organization favored during phase two of industrialization with those anticipated with the coming information age. Much energy has been devoted to describing what, in particular, was changing and Table 3.2 presents some of these contrasts in relation to the environment, technology, social structure, culture, and physical structure, and their consequences for work and organizations. Be sure to read the post-industrial column of Table 3.2 with the sector changes listed in Table 3.1 in mind—I am sure you can find many more ideas to add to these lists to honor the constant change of postmodern/post-industrial life.

The idea of post-industrialization was originally developed using the assumption that the changes referred to are objectively real. But postmodernism brought with it a critique of this modern perspective. Many who adopt the postmodern perspective think that the most influential changes associated with the computer will not be found in the objective world so much as in the ways that computer use recursively turns back on our selves. In other words it is we who have been altered by using the computer, multi-media, and various forms of rapid transportation and instant communication.

Stakeholder theory

The prototypical post-industrial organizational form is the network, but other forms associated with post-industrialism include joint ventures, strategic alliances, and virtual organizations as well as the democratically inspired labor-managed firm and the post-bureaucratic organization. One distinguishing feature of post-industrial organizations is **boundarylessness**. Their boundaries with the environment are either transparent or

Table 3.2 Comparison of organizational implications of industrialism and post-industrialism

	Industrial period	Post-industrial period
Environment	Nation-states regulate national economies Mass marketing standardization The Welfare State	Global competition De-concentration of capital with respect to nation-state Fragmentation of markets and international decentralization of production Rise of consumer choice, demand for customized goods Rise of social movements and single-issue politics (e.g., recycling, Occupy) Service class Pluralism, diversity, location
Technology	Mass production along Taylorist/Fordist lines Routine Manufacturing output	Flexible manufacturing, automation Use of computer for design, production, and stock control Just-in-time systems (JIT) Emphasis on speed and innovation Service-information emerging as most important organizational outputs (a.k.a., value-added activities)
Social structure	Bureaucratic Hierarchical with vertical communication emphasized Specialization Vertical and horizontal integration Focused on control	New organizational forms (e.g., networks, strategic alliances, virtual organization, supply/value chain) Flatter hierarchies with horizontal communication and devolved managerial responsibility Outsourcing Informal mechanisms of influence (participation, culture, communication) Vertical and horizontal disintegration Loose boundaries between functions, units, organizations
Culture	Celebrates stability, tradition, custom Organizational values: growth, efficiency, standardization, control	Celebrates uncertainty, paradox, fashion Organizational values: quality, customer service, diversity, innovation
Physical structure	Concentration of people in industrial towns and cities Local or nationalistic worldview predominant Time experienced as linear	De-concentration of urban areas Reduction in transportation time links distant spaces and encourages international orientation and globalization or 'glocalization' Compression of time (e.g., the shortening of product lifecycles)

(*continued...*)

Table 3.2 (*continued*)

	Industrial period	Post-industrial period
Nature of work	Routine Deskilled labor Functional specialization of tasks and jobs	Frenetic, changing unpredictably Knowledge-based skills required Cross-functional teamwork Emphasis on continuous learning Outsourcing, subcontracting, self-employment, teleworking prevail

Source: Based on Clegg (1990); Harvey (1990); Heydebrand (1977); Kumar (1995); Lash and Urry (1987, 1994); Piore and Sabel (1984).

permeable. Boundaries between internal groups also disappear as distinctions cease to be made between departments, hierarchical positions, and even jobs. Instead employees collaborate with an ever-changing mix of others in temporary cross-functional and cross-organizational teams that emphasize learning in order to keep up with the rapid and never-ending change to which these organizations are well suited and which they help to create. Post-industrial organizational life is thus characterized by uncertainty, contradiction, and paradox; states that contrast sharply with the industrial organization's stability, routine, and rationality. Such views take Burns and Stalker's organic form of organizing well beyond its initial conceptualization.

The boundarylessness of organic organizations extends to the organization's stakeholders whose interests meld with those of the organization as the result of mutual influence. Although different interests are represented by the environment, it becomes impossible to set these off against one another or to privilege one set of interests, an argument that has been examined in depth by American ethics professor R. Edward Freeman.[24]

According to Freeman, corporations operate via a social contract with society that guarantees certain rights to those who have an interest (a stake) in the organization's activities and/or outcomes. The theory is that organizations that attend to the demands of all stakeholders will outperform organizations that ignore some of their stakeholders while privileging others. Notice that stakeholder theory expands the concept of a contract from its narrow political–legal meaning to include social legitimacy. For example, consider the issue of corporate governance to which Freeman applied stakeholder theory. Legal interpretations of corporate responsibility are often restricted to the protection and enhancement of shareholder wealth. Freeman argued that although this is part of corporate responsibility, it is not to be achieved at the expense of respecting ethical considerations such as the potential of organizational activities to do harm (e.g., pollute local air or water supplies, damage a local economy with a plant closing, cause a species of animal to become extinct). In its adoption of social legitimacy as a criterion for governance, stakeholder theory appears to be an application of institutional theory. Furthermore, insofar as stakeholder theory offers justification for reining in the self-interested actions of a privileged stakeholder group (i.e., owners and executives), it resonates with key aspects of critical theory and postmodernism.

One important implication of stakeholder theory is that ethics obligates organizations to consider their impact on the wider social and physical environments from which they take

their resources. Environmental sustainability and corporate social responsibility are two movements in which some companies participate in acknowledgment of these obligations. For example, Interface, the US-based floor cover manufacturing company, a self-professed former 'plunderer of the Earth,' underwent enormous change when it opened itself to the influence of environmental activists and became the standard bearer for environmental protection through environmentally sustainable manufacturing.[25] Danish pharmaceutical company Novo Nordisk provides another example. This company was one of the first to use triple bottom line accounting practices to voluntarily report the company's annual performance in terms of environmental and social responsibility alongside the measures of economic performance demanded by law.

The moral of postmodern theory—avoid hegemony

Most postmodernists oppose replacing modern theories of organization with a bunch more theories, therefore the term postmodern theory is a bit of an oxymoron. Distaste for theorizing is based on the belief that all abstractions are value laden and hence disguise hegemonic intentions (e.g., using the logic of efficiency to conceal Western exploitation of resources around the world). In Marxist theory, from which critical postmodernism draws much support, **hegemony** is a form of domination in which the interests of the ruling class become the status quo through unquestioning acceptance. This is why postmodernists deconstruct the Grand Narratives of modern organization theory; deconstruction reveals the complicity of these narratives in the capitalist hegemonic order and undermines its hold on us.

But for other postmodernists, deconstruction is only an emancipatory first move toward freedom from modernist habits of thought (e.g., belief that their applications of rationality are universally beneficial). These postmodernists imagine organizational reconstructions based on non-modernist conceptions. For this purpose the assumptions and values of the indigenous peoples whose voices have been silenced by modernist hegemony can prove useful. For example, many American Indian cultures believe that responsibility for protecting the environment (Mother Earth) lies in their hands. Contrast their point of view with the modern belief that exploitative practices, such as strip mining, traditional logging, hunting species to extinction, overgrazing prairies, and destroying the rainforests, are the right of those possessing legal claim to those resources. In this context, postmodern critics ask how modern societies manage to silence such voices as those of indigenous peoples and with what consequences?

A key to applying the postmodern perspective lies in noticing how language is used to construct reality and define identity, and then challenging and changing the terms used in a given discourse. For instance, notice that the distinction between the First and Third Worlds implies a hierarchy of dominance and submission that seems natural to those who accept these identifying labels. Postmodernism supports the efforts of marginalized people to define their own identities by choosing empowering labels and insisting that those in positions of dominance use them (e.g., 'developing world' versus 'Third World').

Recognition of the legitimacy of self-chosen identifying labels within a given discourse community symbolically equalizes all the participants in that linguistic community whose old ways of thinking are opened to change by new ways of speaking. While linguistic

strategies such as this cannot perform miracles overnight, there is much reason to believe they unleash transformative powers in society. Take the cases of women and African-Americans in the US, whose powers of self-determination greatly increased along with choosing their own identity labels—woman instead of girl or lady; Black or African instead of Negro or colored.

According to some postmodernists, there is a great need to challenge dominant conceptualizations of the environment and some acknowledge that application of postmodern strategies could help. Organization theorist Paul Shrivastava, for example, turned postmodern deconstruction on organization theory by arguing that conceptions of the environment, such as those provided by the categories and language of modernist organization theory marginalize sustainability. He claimed that by giving so much voice to capitalistic concerns about markets, competitors, industry, and regulation, the natural environment has been denatured, that is, modernist discourse discursively reduces the environment to 'a bundle of resources to be used by organizations.'[26] He warns that the modernist rhetoric of economic necessity has silenced concern for environmental sustainability and justified possibly irreversible abuses to our environment. Deconstructions like this open minds to new possibilities such as Shrivastava's call to place the protection of nature at the center of organizational discourse and to replace the value for wealth with a value for health.

Summary

In conducting environmental analysis from a modernist perspective first define the organization whose environment you are interested in analyzing, then identify the links between this organization and others with which it interacts, or that can influence it through competition, regulation, or social pressure. Using the stakeholder model given in Figure 3.2 will help you make sure you have not left out any important elements of the inter-organizational network. Next consider conditions and trends in the sectors of the environment and assess how the network and its members are likely to be affected by the conditions and trends you have identified. In this effort you are likely to find resource dependence theory and population ecology theories quite helpful.

Remind yourself that distinct levels of analysis are offered by the theories of resource dependence (organizational level) and population ecology (level of the environment), and that the symbolic perspective is invoked when you describe the environment using institutional or enactment theory. These theories derive from differing assumptions about whether the organization is more or less at the mercy of its environment (population ecology and institutional theory), or whether it reciprocally influences the environment (resource dependence and enactment theory).

Institutional theory derives from the environmental level of analysis and tells us that environments vary in the degree to which they are institutionalized and thereby enabled to impose conformity pressures, regardless of whether these take the form of coercion, formal rules and socio-cultural norms, or mimesis. Enactment theory assumes that all sectors of the environment are socially constructed at the organizational level and thus focuses

attention on explaining how and why certain types of environmental analysis hold sway at a particular point in time. Ambiguity theory differs in that it often assumes the individual level of analysis as it focuses on the conflicting and contradictory ways individuals cognitively construct organizational contexts, but it feeds the more organizationally focused enactment theory.

Sectors of the environment help differentiate population ecology, which explains the influences generated by the technical, physical, and economic sectors of the environment; and institutional theory, which focuses on the influences of social, cultural, political, and legal sectors. While population ecology and institutional theory are both formulated at the level of the environment, population ecologists attempt to explain the diversity of organizational forms, while institutional theorists try to explain why so many organizations look alike. In spite of their differences, population ecology and institutional theory are similar in that both depict organizations as relatively passive elements of an environment that shapes them and determines their outcomes. Resource dependence and enactment theory, on the other hand, represent organizations as having an active role through counteraction or outright creation of the environment.

It is important to consider all environment–organization theories—population ecology, institutional, resource dependence, and enactment theory. Even though one may seem to fit an organization better than the others, it is good practice to look at the situation through the different lenses provided by these different reference points for describing and analyzing organization–environment relations. Only after trying them all will you be in a position to evaluate their usefulness for the purposes of your analysis. Look for surprises that the juxtaposition of different perspectives and levels of analysis offer you.

Keep in mind as you go through this book that the theoretical categories on offer are not cast in stone, they are ways to think—different categories stimulate different ideas. Postmodernists encourage openness to multiple points of view and try to soften any rigidity in categories and identifying labels. As you apply what you are learning about organization theory to examples you draw from your experience, you will probably find your examples will fit into many categories, and that your examples will want to shift you from one category to another as you consider how they illustrate various theories. This will likely bring you both confusion and insight and may make you uncomfortable. If your discomfort comes from not being able to pin everything down and find the 'right' answer, try to relax. Remind yourself that everything cannot be pinned down where organizations are concerned, partly because, as systems theory suggests, they are always and everywhere more complex than we are. Or, as suggested by social construction theory suggests, they are ongoing works of enactment and sensemaking. As postmodern organization theory suggests, adopt a healthy skepticism about all static structures like categories and participate in deconstructing them.

No matter the approach you take to organization–environment relations, always ask yourself what assumptions lie behind the categories you are using and whose voices are silenced by this particular construction of reality. Try to imagine what biases you bring to your analysis and seek to counteract them. My plea is not to stop categorizing or making distinctions altogether—these are necessary for thought. The message I encourage you to take from postmodernism is to think, talk, and act in full consciousness or, in other words, be self-reflexive.

Key terms

organizational environment
organizational boundary
stakeholders
inter-organizational network
- *centrality*
- *network density*
- *structural hole*

supply chain
sectors of the environment
- *social, cultural, legal, political, economic, technological, and physical*

internationalization
regionalization
globalization
organizational forms
- *mechanistic*
- *organic*

environmental uncertainty
- *complexity*
- *rate of change*

perceptual uncertainty
information theory of uncertainty
law of requisite variety
isomorphism
resource dependence theory
- *power/dependence*
- *criticality*
- *scarcity*

population ecology theory
- *ecological niche*
- *population*
- *variation, selection, retention*

institutional theory
- *coercive, normative and mimetic conformity pressures*
- *best practice*
- *social legitimacy*
- *institutional myth*

enacted environment
- *equivocality*
- *ambiguity*

three phases of industrialization and post-industrialism
stakeholder theory
boundarylessness
hegemony

Endnotes

1. This formulation can be traced to Dill (1958), Evan (1966), and Thompson (1967). What is here called the inter-organizational network they referred to as the task environment of the organization.
2. Freeman and Reed (1983); Freeman (1984).
3. Granovetter (1985); Burt (1992).
4. Steger (2003).
5. Burns and Stalker (1961).
6. Duncan (1972).
7. Galbraith (1973); Aldrich and Mindlin (1978).
8. Aldrich and Pfeffer (1976).
9. Hawley (1950) is often cited by these population ecologists as a source of inspiration. See Aldrich and Pfeffer (1976) and Aldrich (1979) for reviews. Weick (1979 [1969]) offers a symbolic interpretation of the ideas of variation, selection, and retention for organizational theory.

10. Hannan and Freeman (1977); Carroll (1984); Singh (1990); Carroll and Swaminathan (2000).
11. Selznick (1957); DiMaggio and Powell (1983: 150).
12. Scott (1987).
13. Scott (1992: 117).
14. DiMaggio and Powell (1983); Powell and DiMaggio (1991).
15. Meyer and Rowan (1977).
16. Baron (2003).
17. Weick (1979).
18. March and Olsen (1976: 77); March (1978).
19. Eisenberg (1984: 230).
20. Meyerson (1991).
21. Schwartz (1991).
22. Bell (1973); Lyotard (1979); Harvey (1990).
23. Burns (1962).
24. Freeman and Reed (1983); Freeman (1984).
25. Amodeo (2005).
26. Shrivastava (1995: 125); see also Boje and Dennehy (1993).

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