Organizational social structure

Organization theorists often claim that organization arises when people learn what they can accomplish if they pool their efforts, resources, knowledge, and/or identities. That groups can outperform individuals in terms of the efficiency of labor has already been discussed in terms of pin manufacturing, while NASA illustrates the superior effectiveness of groups in making it possible to do things that no individual acting alone could accomplish. NASA's achievements in space exploration, for example, required the organized efforts of scientists, engineers, and astronauts, but also technicians, production workers, maintenance workers, clerical employees, and managers, not to mention equally important organized efforts within the scientific community, the defense industry, and the United States government. NASA also illustrates how failures of organizing can destroy lives and careers and threaten an organization's survival, all of which happened when NASA lost two space shuttle crews in horrific explosions.

Of all the theoretical concepts organization theory has produced, social structure has probably been around the longest. The term **structure** refers to the more or less stable relationships among parts of any system or entity. For example, the relationships between the foundation, frame, roof, and walls of a building give it the structure it needs to stand and provide shelter to its occupants, just as relationships between bones, organs, blood, and tissue structure a human body and enable its many life supporting functions – mobility, digestion, respiration, circulation, and so on.

Organization theorists are particularly interested in two types of structure: physical and social. Physical structure refers to the spatio-temporal relationships between material elements of an organization such as its buildings, their geographical locations, and the heritage and other symbolic meanings they embody. Social structure meanwhile refers to relationships among the people and the roles and responsibilities they assume within the organization, such as the groups or units to which they belong (e.g., functional departments, divisions). Of course the physical and social structures of organizations are not completely separate; they overlap in the same sense that people have both physical bodies and social identities. This chapter will cover the social structure of organizations and organizing while physical structure, which is the most recent concept to develop in the core of organization theory, will be taken up in Chapter 7.

The elements and dimensions of organizational social structure (sometimes simply called organizational structure), introduced during the prehistory of organization theory,

will provide a starting point for discussing this concept as the modern perspective represents it. Even today one of the assumptions most modern organization theorists make is that social structure is objective, an entity with identifiable and measurable characteristics. Most often an organization's social structure is assumed to be stable unless or until management decrees a change, which is where normative interests intersect with those of modernist explanation. If a change in structure means a change in the organization, then as the environment changes so too must the organization in order to fit into its changing context. Thus it was that social structure came to be viewed as a pragmatic tool for controlling employee behavior and achieving desired organizational outcomes.

As organization theory developed, the assumptions underpinning the modern perspective in organizations were challenged and new understandings and appreciation for the benefits of loosening the grip of formal authority and other modernist structural mechanisms were added. The chapter more or less follows the historical progression of the social structure concept, one step at a time, beginning with its pre-modern origins and ending with new appreciations of organizational social structure made available by those who adopt the symbolic and postmodern perspectives.

Origins of the social structure concept

Early organization theorists were keenly interested in finding the most effective and efficient way of achieving an organization's stated purpose or goal through the structural arrangement of people, positions, and work units. The trouble was that there was no agreement over which dimensions of organizational structure revealed the one best way to organize. The debate traces back to Max Weber's definition of organizational social structure, part of his theory of bureaucracy.

Weber's ideal bureaucracy

Max Weber published his theory of organization in the early 1900s, though his work was not translated from German into English until the mid-1940s, coinciding with the birth of organization theory in its modern form. In numerous essays, Weber offered an ideal model of organization as a **bureaucracy**, whose main characteristics are:[1]

- A fixed division of labor.
- A clearly defined hierarchy of offices, each with its own sphere of competence.
- Candidates for offices are selected on the basis of technical qualifications and are appointed rather than elected.
- Officials are remunerated by fixed salaries paid in money.
- The office is the primary occupation of the office holder and constitutes a career.
- Promotion is granted according to seniority or achievement and is dependent upon the judgment of superiors.
- Official work is to be separated from ownership of the means of administration.

- A set of general rules governing the performance of offices; strict discipline and control in the conduct of the office is expected. (*Source*: Parsons (1947); Scott (1992).)

Weber's use of the term ideal might not be what you expect; he used it in the sense of a pure idea—something that can only be known through the imagination—rather than a perfect or desirable entity or existential state. In his original discussion of ideal types, he made reference to similar notions in other academic disciplines, such as ideal gases in physics, or ideal competition in economics. Ideals in Weber's usage do not indicate goodness or virtue; instead their abstract nature makes them a useful basis for theorizing, even if we cannot expect them to exist in the world around us.

The ideal bureaucracy that Weber imagined offered a model for turning employees with no more than average abilities into rational decision makers serving the clients and constituencies of a bureaucracy with impartiality and efficiency. Conceptualized in this way, the bureaucratic form promised reliable decision making, merit-based selection and promotion, and the impersonal, and therefore fair, application of rules. Modernist organization theorists based their definition of three core components of organizational social structure on Weber's theory: division of labor, hierarchy of authority, and formalized rules and procedures.

Division of labor

The **division of labor** refers to splitting the work of the organization among employees, each of whom performs a piece of the whole output-generating process. It distributes responsibilities and assigns work tasks. When labor is properly divided the combination of work tasks produces the desired output of the organization with efficiency and effectiveness. Smith's description of the division of labor in a pin-manufacturing firm provided a simple example of how the division of labor organizes work (one draws out the pin, while another attaches the head), but you can easily think of other examples such as the assembly line of an automobile manufacturing plant, or the processes involved in providing banking, education, or health care services.

The ways in which tasks are grouped into jobs and jobs into organizational units is also part of the division of labor. Grouping similar or closely related activities together into organizational subunits produces departments (e.g., purchasing, production, marketing) and/or divisions (e.g., consumer products, international sales) from which combinations of organizational structures are built. Because administrators or managers typically oversee the subunits created by this **departmentalization**, the division of labor is closely related to hierarchy of authority, the second of Weber's components of organizational social structure.

Hierarchy of authority

Hierarchy refers to the distribution of authority in an organization. Some people believe that hierarchy is a fundamental aspect of life; they find evidence to support their belief in things like the pecking order observed among chickens and the way wolves and dogs demonstrate domination and submission in their relationships to each other and to

humans. Organizational hierarchies, they believe, are the human form of these animalistic tendencies.

Regardless of whether or not you agree that hierarchy is natural, you will probably recognize it as a feature common to most if not all organizations. According to Weber, a top position in the hierarchy confers legal authority—the rights to make decisions, give direction, and reward and punish others. One's authority is strictly a matter of position, so when an individual retires or moves to a new position or different organization, the authority of their former position remains behind to be assumed by their successor.

The hierarchy defines formal reporting relationships such that it maps the organization's vertical communication channels—downward (directing subordinates) and upward (reporting to management). When each position in an organization is subordinate to only one other position, a phenomenon Fayol called the scalar principle, authority and vertical communication combine to permit the most highly placed individuals to gather information from, and to direct and control the performance of, all individuals throughout the organization in an efficient manner.

In the past, many managers believed that every member of an organization should report to only one person so that each member has one clear path through the hierarchy stretching from themselves to their boss, to their boss's boss, all the way to the pinnacle of the organization. But dual reporting relationships are increasingly common, as are nonhierarchical lateral connections used to integrate an organization's diverse activities and promote flexibility of response to environmental pressures. Weber's third component of social structure sometimes serves as a substitute for hierarchical authority as it replaces some of the control lost to flattened hierarchical authority structures or when work is distributed across large distances in global organizations.

Formalized rules and procedures

Formalization involves the extent to which explicit rules, regulations, policies, and procedures govern organizational activities. Indicators of formalization in an organization include: written policies, handbooks, job descriptions, operations manuals, organization charts, management systems such as Management by Objectives (MBO), and technical systems such as PERT (program evaluation review techniques) or supply chain management systems. Formal rules, procedures, position descriptions, and job classifications specify how decisions should be made and work performed.

Government organizations are often associated with both bureaucracy and high levels of formalization. For example, in 2003 the State of California had 4,500 formal job classifications (groupings of jobs defined by similar responsibilities and training) defining the work of 230,228 employees.[2] These job classifications defined the division of labor, specified the type of position appropriate to each level in the hierarchy, and provided the basis for making hiring decisions, determining pay levels, and coordinating work throughout the state.

Along with strict observance of positional authority, formalization contributes to the feeling of impersonality often associated with bureaucratic organizations. It reduces the amount of discretion employees have in performing their work tasks while increasing the control managers maintain over their employees. Studies have shown that formalization tends to discourage innovation and suppress communication.[3] By contrast the lack of formalization, sometimes

referred to as informality, denotes the flexibility and spontaneity of non-bureaucratic organizations. However, to really appreciate the concept of bureaucracy it is important to recognize the difference between Weber's ideal bureaucracy and the organizational reality with which you are probably familiar.

For Weber, bureaucracy is not the ponderous frustrating bastion of mediocre service many people associate with this way of organizing. At least in its ideal form, bureaucracy provides a rationalized moral alternative to the common practice of nepotism and other abuses of power rampant in the feudal pre-industrial world from which modern bureaucratic and industrial organizations emerged. Since Weber's time we have learned much about the negative face of bureaucracy, particularly its tendency to over-rationalize decision making to the point of turning people into unfeeling, unthinking automatons, an inclination satirized in Joseph Heller's novel *Catch 22* and Terry Gilliam's film *Brazil*, both of which emphasized the nonsense created by overreliance on bureaucratic formalities. Weber himself recognized the potential for trouble, warning that bureaucracy could easily become an iron cage imprisoning all who wandered into its clutches.

In spite of the drawbacks, when organizations are large and operate routine technologies in fairly stable environments, bureaucracy offers benefits enough for many societies to continue to create and maintain numerous bureaucratic organizations in spite of distaste for the working conditions they foster and disappointment in the level of service they provide, all of which lie far from Weber's ideal. Today you will find bureaucracy in most governments, nearly every university, the Catholic Church, and large organizations such as McDonald's, Telefónica, and Royal Dutch Shell.

Measuring organizational social structure

In their search for general laws that would reveal the best way to organize employees to perform work, classical management scholars used their considerable practical experience as executives and consultants to empirically examine Weber's idealized concepts of division of labor, hierarchy of authority, and formal rules and procedures. Their efforts to refine and extend Weber's theory resulted in specification of numerous dimensions, some of which appear in Table 4.1.

Measures such as those listed in Table 4.2 render the dimensions of social structure amenable to statistical analysis and comparison. The modern perspective in organization theory got its initial boost from studies correlating measures of organizational social structure with measures of performance defined at the individual, group, and organizational levels of analysis. Explanations of statistically significant correlations produced the first distinctly modern theories of organization.

Some of the earliest theories rested on comparisons made between the effectiveness or efficiency of different organizational forms defined by combinations of structural dimensions. For example, differences of social structure were revealed when combining measures of hierarchy and division of labor such as those shown in Figure 4.1. Figure 4.1a shows an organization with a flat structure spread out over many departments (a high degree of horizontal differentiation) with few hierarchical levels (low vertical differentiation). Figure 4.1b, by contrast, shows a tall organizational structure having fewer departments (low horizontal differentiation) but many more hierarchical levels (high vertical differentiation). The data meant to determine which of these and other combinations of structural features produced

Table 4.1 Commonly used dimensions of organizational social structure

Dimension	Measure
Size	*Number of employees in the organization*
Administrative component	Percentage of total number of employees that have administrative responsibilities, often broken into *line functions* (departments involved directly in the production of organizational outputs) and *staff functions* (departments that advise and support line functions with strategic planning, finance, accounting, recruitment, training, and so on).
Differentiation	*Vertical* differentiation, shown in the number of levels in the hierarchy, or *horizontal* reflecting the extent of the division of labor as shown in the number of departments or divisions spanning the entire organization and sometimes reflected in the average span of control of managers.
Integration	The coordination of activities through accountability, rules and procedures, liaison roles, cross-functional teams, or direct contact.
Centralization	Extent to which authority to make decisions concentrates at the top levels of the organization; in *decentralization* decision making is spread across all levels in the hierarchy.
Standardization	The extent to which standard procedures govern the organization's operations and activities rather than using individual judgment and initiative to respond to events as they arise.
Formalization	Extent to which an organization uses written (i.e., formal) job descriptions, rules, procedures, and communications, as opposed to communication and relationships based on informal, face-to-face interaction.
Specialization	Extent to which the work of the organization is divided into narrowly defined tasks assigned to specific employees and work units.

the greatest likelihood of success, proved inconclusive. In some studies one configuration would prevail, while in another something different emerged as the victor.

Over time the empirical approach modernists hoped would reveal the best way to organize led them to define more and more dimensions of social structure, as Table 4.1 attests. Yet what the body of research ultimately demonstrated is that no one structural configuration can be deemed universally superior to the others. Instead many modernist organization theorists came to believe that the best structural choices were contingent upon other variables.

Modernist theories of organizational social structure

Contingency theorists claim that the dimensions of organizational structure relate to each other and to performance differently depending upon the environment the organization faces, and on its size as well as the technology and strategy it employs. Contingency theorists

(a) A flat organization structure

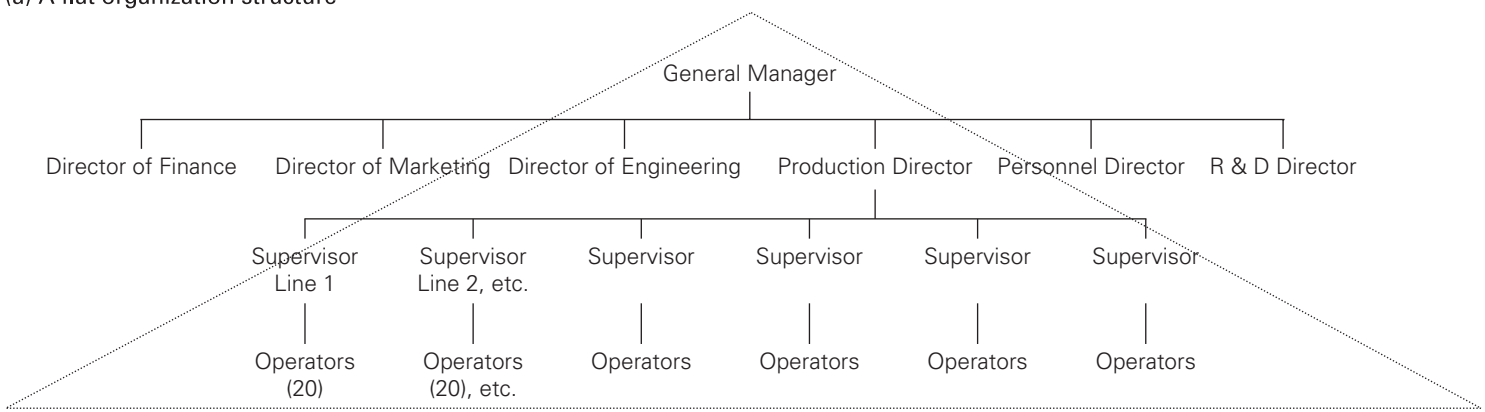

Figure 4.1 A comparison of flat (a) and tall (b) organization structures

These organization charts provide a quick impression of what is meant by steep or tall hierarchies as opposed to flat, less hierarchical organizations.

(b) A tall organization structure

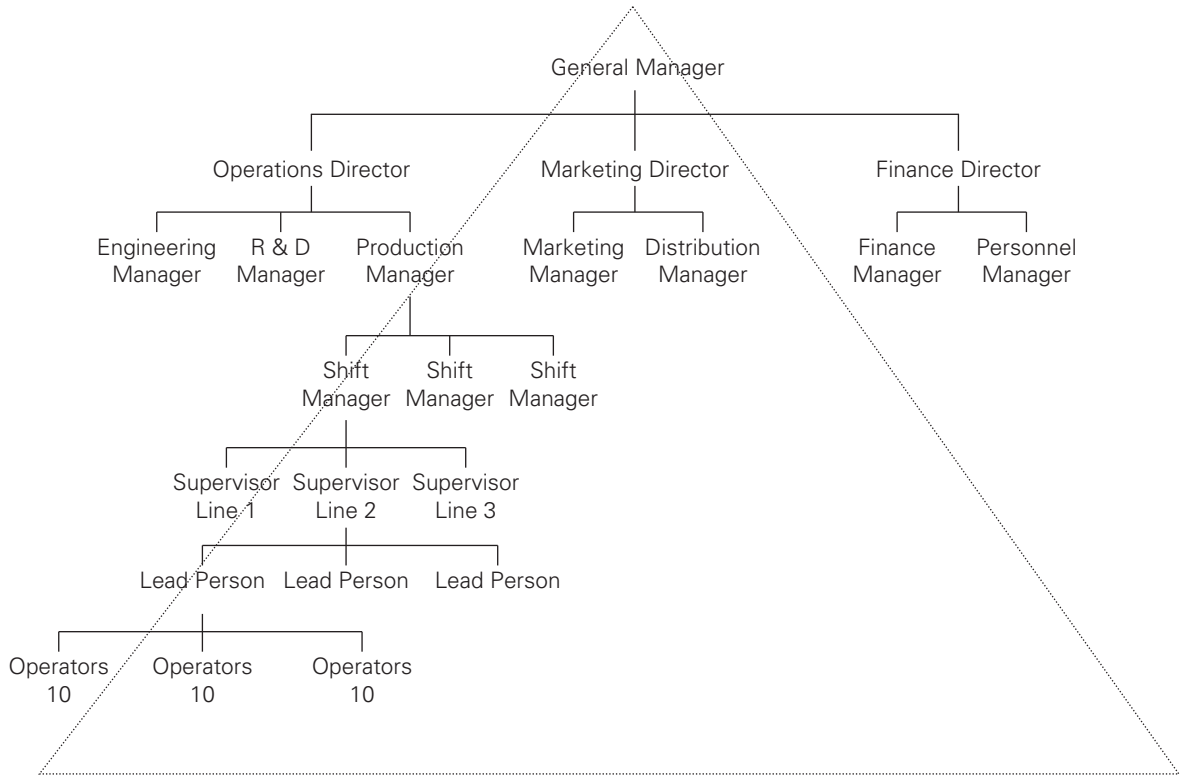

Figure 4.1 (*continued*)

today still believe that by analyzing structural dimensions in relationship to other variables describing organization, they can offer recipes for successful organizing to practitioners drawn to their way of thinking.

Contingency theory produced several structural typologies and taxonomies that identify particular constellations of structural dimensions found in practice. These constellations allow theorists to group multiple characteristics in order to map the organizational forms they find in practice. This approach only provides static representations of structure, however, and empirical data based on these theoretical frameworks collected over time reveal that structures change. This finding led to models of structural growth and change that promote active engagement in structuring processes. The dynamic approach would eventually open modernist researchers to the symbolic perspective, in part via an important theory lying midway between the two perspectives: structuration theory.

Structural contingency theory

Contingency theorists focus on discovering what constellations of organizational factors contribute to organizational survival and success. Many organizational contingencies have been proposed and validated by empirical study such that, in his 1996 review of contingency theory, Australian organization theorist Lex Donaldson could claim that:

> There are several contingency factors: strategy, size, task uncertainty and technology. These are characteristics of the organization. However, these organizational characteristics in turn reflect the influence of the environment in which the organization is located. Thus, in order to be effective, the organization needs to fit its structure to the contingency factors of the organization and thus to the environment. Hence the organization is seen as adapting to its environment.[4]

British organization theorists Tom Burns and George M. Stalker were the first to suggest in 1961 that effective organizational design is based on fitting the internal organizational structure to the demands of the environment. Paul Lawrence and Jay Lorsch followed close on their heels with their 1967 empirical study of how contingencies created by the environment influenced an organization's patterns of differentiation and integration. At roughly the same time, a group of researchers from Aston University in the UK conducted research showing that an organization's social structure is contingent on its size. These empirical studies collectively shaped contingency theory.

Mechanistic and organic organizations, centralization, and leadership styles

Burns and Stalker's contingency theory not only contributed to theorizing environmental uncertainty, but also produced one of the first studies of how the form an organization takes influences its chances of success. Recall that the studies these researchers conducted in the electronics industry and in research and development (R&D) firms showed mechanistic organizations outperforming organic organizations in stable environments, while in unstable environments organic organizations were more successful.

The theory Burns and Stalker offered in explanation of their findings employed **innovation** as an intervening variable because their studies had shown that innovation tended to be

limited in mechanistic forms of organization. They theorized that high levels of hierarchical control, clearly defined roles and tasks, and centralized decision making all impede flexibility and creativity. Likewise formalization interferes with innovation because change requires rewriting policies and rules and disseminating the revisions to supervisors who must then implement the new rules and ensure that others comply with them. They concluded that, whenever innovation is needed for adaptation or responsiveness to changes in the environment, mechanistic structures hinder performance.

In contrast to mechanistic forms, Burns and Stalker reasoned, organic forms are more likely to be innovative and to grant greater discretion to employees performing tasks since they are not bound by the formality of rules and procedures, and decentralized decision making pushes authority and responsibility to lower levels of the hierarchy. This means that employees hired for their knowledge and expertise have the discretion to use their skills and training, and the flexibility to experiment and solve problems as they arise. In organic forms, so the theory goes, systems and people are more proactive and adaptable to changing circumstances. In rapidly changing environments, where organizations need to innovate to survive, teams of knowledgeable employees working together to anticipate and respond quickly to shifting environmental demands are needed.

You can discover the difference between mechanistic and organic forms of organizing for yourself by comparing some common organizations; most college libraries, post offices, and government agencies have the characteristics of mechanistic organizations, while hospital emergency rooms, research laboratories, and outings with your friends tend to be organic. Of course, all organizations combine these two forms of organizing, which is revealed when you drop to lower levels of analysis.

At the level of university departments for example, most administrative work is done in a mechanistic way, while the best faculty research and teaching gives evidence of organic organization. At the level of tasks, however, all jobs have both mechanistic and organic elements. Take university teaching as an example. Teaching is partly mechanistic (e.g., testing knowledge, reporting grades) and partly organic (e.g., designing curricula, facilitating group learning experiences, answering student questions). At the even lower level of subtasks lie even more mechanistic and organic components, and on it goes.

The mechanistic–organic distinction is useful as a way to characterize the central tendencies of different forms of organizing at any level of analysis. The chief differences between them are summarized in Table 4.2.

One of these dimensions, centralization–decentralization, figures prominently in most theories involving organizational social structure and is often invoked when choosing an appropriate leadership style. In a centralized organization, control is maintained by making decisions almost exclusively at the top of the hierarchy, and by expecting employees to accept their executives' decrees without question. However, because centralization minimizes participation among lower-level employees, it often leaves those lower in the hierarchy feeling uninvolved in the organization and can impede their understanding and dampen their enthusiasm for achieving its goals.

By contrast, decentralized organizations rely on the participation of many members of the organization in decision-making processes and so encourage a sense of involvement and feelings of responsibility for outcomes. However, because decentralized organizations are more difficult to control, their executives have to be willing to accept a certain amount of

Table 4.2 Comparison of the characteristics of mechanistic and organic organization

Mechanistic structures *(predictability, accountability)*	**Organic structures *(flexibility, adaptability, innovation)***
High horizontal and vertical *differentiation*—a hierarchical structure of authority and control.	High/complex horizontal and vertical *integration*—a network of authority and control based on knowledge of the task.
High formalization—the definition of roles, responsibilities, instructions, and job methods is stable.	Low formalization—tasks and responsibilities are redefined depending on the situation.
Centralization—decisions made at the top of the hierarchy.	Decentralization—decisions made by those closest to and most knowledgeable about the situation, and/or by those with responsibility for implementation.
Standardization through written rules, procedures, SOPs.	Mutual adjustment and redefinition of tasks and methods through joint problem solving and interaction.
Close supervision with authority and prestige based on position.	Personal expertise and creativity without supervision. Prestige attached to expertise.
Vertical (superior–subordinate) communication in the form of instructions.	Frequent lateral communication, often in the form of consultation between people from different departments.

control loss to effectively lead them, which changes the leadership role from one of directing and controlling organizational activities, to inspiring, supporting, and facilitating them.

Differentiation and integration

Like Burns and Stalker, Lawrence and Lorsch believed that effective organizational performance is determined by the fit between an organization's social structure and its environment. In particular, the most successful organizations are those wherein the degree of differentiation and the means of integration match the demands of the environment. In their initial study of six organizations in the plastics industry (at that time a complex and unstable environment), they found that organizational subunits were confronted with different degrees of uncertainty that caused each department (sales, production, applied research, and fundamental research) to vary in terms of its degree of differentiation. Using four dimensions of differentiation—degree of formality, relative amount of attention given to task performance and relationship building, orientation to time, and goal orientation—their data revealed that:

- Departments operating in the most stable environments (production) were more formalized, hierarchical, and carried out more frequent performance reviews than those facing environmental uncertainty (R&D); sales and applied research departments fell in between these two extremes.

- Departments with greater task uncertainty (sales) were more relationship-oriented than departments facing less task uncertainty (production), which were more task-oriented.
- Sales and production departments held short-term orientations and required rapid feedback on results, while R&D departments had long-term orientations (of at least several years out, depending on the length of their projects).
- The goal orientations of sales departments were concerned with customer issues, while production had a goal orientation defined by cost and process efficiency.

In the businesses Lawrence and Lorsch studied, differentiation occurred as sales departments focused on customer satisfaction and building customer relationships, for instance by meeting individual customer requests for customized products, or reducing response times. Meanwhile the production departments in their study were more task-oriented, focusing on daily and weekly output goals, and the efficient use of people and equipment by producing large amounts of a standardized product and minimizing the time required to retool equipment and change work processes for individual orders. You can see how these different orientations might lead to conflict between these departments, especially when performance measures are tied to substantial rewards.

According to Lawrence and Lorsch's theory, the more complex the organization, both in terms of horizontal and vertical differentiation, the greater the need for integration and communication.[5] These researchers defined **integration** as the collaboration required to achieve unity of effort (i.e., getting everyone to pull in the same direction). The most common organizational integration mechanism is hierarchy—creating formal reporting relationships that allow managers to coordinate activities and resolve problems by exercising their authority. Formal rules, procedures, and scheduling are other common integration mechanisms, as are liaison roles, committees, task forces, cross-functional teams, and direct communication between departments. For example, an organization might have a technical sales engineer in a liaison role to talk with the customer, coordinate with purchasing, production planning, production, quality control, finance, and the legal department to ensure a contract is satisfactorily completed on time. A hospital might have a cross-functional team of medical, nursing, therapy, finance, and social services staff to manage an individual patient's health care program.

Differentiation and integration bear an interesting co-dependent relationship; adding hierarchical levels in an organization creates greater vertical differentiation that, in turn, requires more integration. Although the hierarchy of authority makes a substantial contribution to overall coordination, hierarchy alone cannot keep up with a growing organization's endless and ever-increasing demands for integration. At some point, the mechanistic organization gives way to the organic one. In response to this dilemma, numerous additional integrating mechanisms have been devised to complement if not replace the hierarchy of authority.

In a follow-up study, Lawrence and Lorsch scrutinized the relationship between environmental stability and internal structure.[6] They selected two organizations from the packaged foods industry, an industry at the time confronting an unstable environment with many diverse elements, and two from the container industry, where a stable environment prevailed. They concluded that high performing organizations had the appropriate degree of differentiation for their environments and used forms of integration consistent with the coordination demands of their differentiated activities. In particular they found that:

- Unstable environments required a higher degree of differentiation than stable environments in order to meet varying and complex demands.
- Both stable and unstable environments required a high degree of integration, but the means of integration differed: in stable environments, hierarchy and centralized coordination were favored, in unstable environments there is a need to push decision making to lower hierarchical levels so that problems can be dealt with through direct communication with those possessing relevant knowledge.

Lawrence and Lorsch concluded that appropriate levels of differentiation and methods of integration vary depending on the particular organization or department in question and the relevant environment. Their data showed that goodness of fit correlated with higher levels of organizational performance in the sample of businesses and departments they studied.

Organizational size

Researchers from the UK's Aston University developed quantitative measures of six variables defining organizational social structure: the degree of specialization, standardization, formalization, centralization, configuration, and flexibility.[7] They gathered comparative data from 52 organizations on each of these variables. For example, to measure degree of centralization, the researchers assessed the level at which 37 common decisions were made in the organizations surveyed by asking which level in the hierarchy had the authority to make each decision. They averaged the data for all 37 decisions to create an overall centralization score for each organization.

Breaking down the centralization measure, however, revealed that while an organization may be highly decentralized with respect to work-related decisions, it can at the same time be highly centralized with respect to strategic decisions.[8] Different decisions call for different level decision makers. In universities, for instance, decisions about course offerings, new faculty hires, and the distribution of travel funds are typically made in the academic departments, and so you would consider them to be decentralized. Decisions about university fundraising campaigns or charting new directions for university growth are made by the university president and their board of trustees and so are centralized. Once again dropping down one level of analysis presented organization theorists with a more comprehensive but also a more complicated picture.

The Aston studies revealed that **size** interacts with other dimensions of social structure in unexpected ways. Subsequent research showed that when centralized organizations are large, decision bottlenecks can undermine organizational performance by slowing organizational responses to environmental pressure. This explains why most studies of large organizations indicate a negative relationship between formalization and centralization, that is, these organizations often trade off centralization for formalization because formal rules and procedures direct subordinates to make the same decisions their managers would make. Thus large decentralized organizations, particularly bureaucracies are more likely to be formalized than are large centralized organizations.[9]

This finding solves what was once a puzzle for organization theory. Like these early organization theorists you, too, may think that mechanistic and bureaucratic are two words for the same thing. Experience with bureaucracies often creates this belief because the image of an

unfeeling machine fits with the red tape associated with bureaucracy. Notice, however, that there is one feature of bureaucracies that distinguishes them from mechanistic organizations—the bureaucracy is *de*centralized whereas the mechanistic organization is centralized.

The trick to resolving the decentralization puzzle is to understand what it means to say that a bureaucracy is simultaneously highly formalized and decentralized. In a bureaucracy, many routine decisions are pushed to low levels of the organization, but there are strict rules and procedures that govern how those decisions are made. Thus street-level bureaucrats (police, social workers, teachers, clerks, etc.) often have discretion, but can only exercise it within strict limits. Like mechanistic organizations, the bureaucracy remains highly controlled, but it does so by being decentralized in such a way that allows lower-level bureaucrats to make all the programmed decisions, while freeing higher-level bureaucrats to form policy and make unprogrammed decisions.

Contingency theory today

In his historical review of contingency theory, Donaldson insisted that contingency is the essence of organization theory. Although others argue that its endless discovery of yet more contingencies erects practical barriers to finding an answer to the question of how best to organize, it clearly lives on in the logic of modernist organization theory in that almost all modernists try to find predictive relationships between variables representing the organization, its environment, and its performance. Contingency theory demonstrates that all organization theories have boundary conditions, each theory only applies to a subset of all organizations. Thus the primary contribution of contingency theory has been to make us aware that there are many different ways to organize successfully. The enumeration of organizing possibilities and consequences remains the task of the contingency theorist today.

Examples of the boundary conditions specified by contingency theorists include showing when mechanistic forms of organizing are inappropriate. Small organizations do not need formalization, since direct supervision through daily contact with the boss is cheaper and more satisfying for members of the organization than are formal rules and procedures. Similarly, non-routine technologies and unstable environments undermine the effectiveness of mechanistic organizations, but for different reasons. Under these conditions formal rules and procedures cannot cover all the possibilities and problems that arise in the course of doing business.

Large organizations that exist in stable environments and provide standardized services or products operate most efficiently when they use mechanistic forms, but as environments change, organizations need to change also. Most people are familiar with McDonald's—the hamburger organization that operates under the sign of the Golden Arches. As of 2012 McDonald's has 33,000 restaurants in 119 countries, 1.7 million employees, and serves in excess of 68 million people every day. Their goal is to be their customers' favorite place and way to eat.[10]

Ten years ago, McDonald's was widely respected for its size, use of mechanistic structure, and its high degree of formalization, which includes an operations manual over 400 pages long. Uniformity of product offer and retail design meant you could instantly recognize McDonald's anywhere in the world and know exactly what you would buy there. Since then, increasing competition and changes in nutritional habits have led McDonald's to move in

the direction of taking a more flexible, organic approach. Already in 2005 the McDonald's website described structural changes underway in these terms:

> Decentralization is fundamental to our business model—and to our corporate responsibility efforts. At the corporate level, we provide a global framework of common goals, policies, and guidelines rooted in our core values. Within this framework, individual geographic business units have the freedom to develop programs and performance measures appropriate to local conditions.[11]

Types and taxonomies

Inspired by Weber's definition of bureaucracy, and Burns and Stalker's distinction between mechanistic and organic organizational forms, several modernist organization theorists created their own typologies of organizational forms. The best known is probably Canadian organization theorist Henry Mintzberg's five types of organizational structure shown in Table 4.3.[12]

Typologies like Mintzberg's encourage prescriptive theories of organizational structure, sometimes collectively referred to as the **organizational design** school, according to which different organizational forms are recommended depending upon the internal and external needs of the organization. Such theories assume managers can adopt appropriate organizational forms by design, hence the design school label.

A taxonomical approach to addressing the variety of organizational forms was offered by modernist organization theorist William McKelvey who proposed that, just as biological organisms are categorized and compared by taxonomists to map their genetic structure, so an organizational taxonomy might account for different species of organizations.[13] McKelvey's application of genetic theory from the field of biology to the higher-level system of social organization is reflected in calls to study **organizational DNA**, a metaphoric reference to a code or structure capable of explaining organizational forms and predicting their behavior.

Models of structural change

In spite of its inclusion of organic organizational forms as responses to changing environmental conditions, contingency theory itself presents a fairly static approach to organizational structure in that the contingencies determining organizational success are assessed at specific moments in time. By contrast other modernist models focused on how organizational social structure changes.

Models describing how organizational social structures change typically take one of two forms. Evolutionary models explain how organizations develop over time through a progression of more or less static states or stages. The other type of structural change model focuses on the dynamics of change as these occur in the contexts of everyday organizational life. In these dynamic theories the seeming stability of social structure is undermined by discovering that numerous interactions shape and transform social structure on a more or less continuous basis. Evolutionary or stage models stay within the boundaries of the modernist approach, while models of the dynamics of everyday interaction move toward the symbolic perspective.

Table 4.3 Mintzberg's structure in fives

	Description	Appropriate for
Simple structure	Most basic structure. Power centralized in top management, with few middle managers employed. Usually small companies use this form and control is exercised personally by managers who are able to know all their workers and talk to them directly on a daily basis.	Entrepreneurial companies, companies with simple or single products. Examples: most start-ups.
Machine bureaucracy	Highly efficient but not flexible, these organizations emphasize standardization of production processes. Most employees perform highly specialized tasks that require few skills. The organization needs detailed planning and so requires administrative management.	Companies involved in mass production, or that produce simple products in stable environments. Examples: McDonald's, UPS.
Professional bureaucracy	Relies on standardized skills, rather than standardized processes. Use of professionals permits organization to give its employees discretion in performing tasks for which they have been professionally trained. Have less hierarchy than machine bureaucracies although professionals are supported by more mechanistically organized staff.	Best suited to companies operating in complex, stable environments. Examples: universities, hospitals, large consulting houses such as McKinsey and KPMG.
Divisionalized form	Relatively autonomous divisions run their own businesses, each producing specialized products for particular markets. Divisions overseen by corporate staff who set divisional goals, control behavior by regulating resources, and monitor performance using standardized financial measures (e.g., sales targets, rates of return, brand equity).	Best in complex, somewhat unstable environments because divisions can shut down or be spun off and new businesses started up more easily than with bureaucratic forms. Examples: General Electric, General Motors.
Adhocracy	A structure of interacting project teams whose task is to innovate solutions to constantly changing problems. Employs many experts who produce non-standardized products to their customers' or clients' specifications. Decision making is highly decentralized and strategy emerges from actions taken throughout the company.	Best in turbulent environments when an organization needs constant innovation. Examples: small consulting houses such as advertising agencies, biotechnology firms, think tanks.

Source: Based on Mintzberg (1981, 1983).

Two theories portray different ways to think about the stages of development that organization structures typically go through. Larry Greiner's lifecycle theory depicts organizational growth as a sequence of evolutionary periods punctuated by revolutionary events, while Katz and Kahn's open systems model describes a social structure as it emerges from organizational responses to both technical and environmental pressures. Anthony Giddens's structuration theory and his conception of the duality of structure and agency will describe the dynamic play of elements that constitute organizational structure.

The organizational lifecycle

Just as a child passes through infancy and childhood to adolescence and maturity, so, according to American organization theorist Greiner, an organization passes through entrepreneurial, collectivity, delegation, formalization, and collaboration stages (see Figure 4.2).[14] Greiner theorized that, in each stage of its lifecycle an organization is dominated by a different focus and each stage ends with a crisis that threatens its survival—bringing about a revolutionary change through which the organization passes into the next developmental stage.

In the **entrepreneurial stage**, an organization is focused on creating and selling its product. This phase usually takes place in a small setting in which every member of the organization is familiar with what the other members are doing. The entrepreneur can easily control most activities personally and this personal contact makes it easy for other employees to sense what is expected of them and to receive direct feedback and close supervision. If successful (and remember, the majority of organizations fail at this early stage), the entrepreneurial organization will find itself in need of professional management. Entrepreneurs are usually idea people or technical experts rather than organizers, and further organizational development often necessitates bringing management skills in from outside the organization, although sometimes professional management develops from within. In rare cases the entrepreneur evolves along with the needs of the organization (e.g., Bill Gates at Microsoft, Michael Dell from Dell Computers, Steve Jobs at Apple).

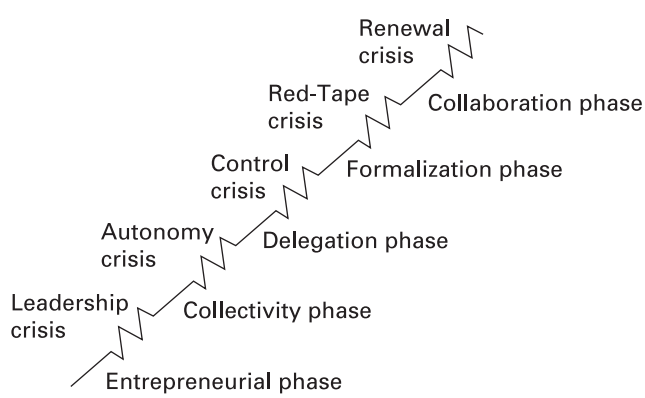

Figure 4.2 Greiner's model of organizational lifecycles

Source: Adapted and reprinted by permission of *Harvard Business Review*. From 'Evolution and revolution as organizations grow' by Larry Greiner, 50 (July–August) 1972. Copyright 1972 by the President and Fellows of Harvard College, all rights reserved.

It often takes a crisis to convince the entrepreneur that professional management is required, since the early successes that allowed the organization to survive and prosper will also give the entrepreneur the impression that things are fine the way they are. However, growth brings differentiation and sooner or later the organization becomes too complex for a single individual to monitor everything that is going on. This condition can be compounded by an entrepreneur's distaste for management activities. According to Greiner, the result of this early differentiation, coupled with inadequate attention to integration due to lack of managerial oversight, throws the organization into a **leadership crisis**. Successful resolution of the leadership crisis moves the organization into the collectivity stage.

The introduction of the organization's first professional management usually brings the organization through the leadership crisis and provides it with centralized decision making and a renewed focus on its purpose. The primary concern of the new management is to provide a sense of direction and to integrate the differentiated groups operating within the organization. In this **collectivity stage**, concern for clear goals and routines takes over the production and marketing focus of the entrepreneurial stage. In this stage the organization's complexity grows through differentiation until, once again, the organization becomes too much for the existing social structure and its management to handle. This time crisis arises from an overloaded decision-making process, the result of too much centralization.

During the collectivity stage centralization gives the organization its sense of a clear direction because decisions are coordinated by a set of well-integrated decision makers (i.e., the new professional management). However, at some point even the most effective managers of a centralized social structure cannot keep pace with the decisions required by an ever more differentiated organization. Thus, sooner or later, centralized decision making becomes a bottleneck for action, and decisions must be pushed down the hierarchy if the organization is to continue functioning. Greiner called this the crisis of autonomy. The reason this situation produces a crisis is that most managers find it difficult to relinquish control over formerly centralized decisions. It is typical for management to wait overlong in initiating decentralization and their hesitation is what provokes the **autonomy crisis**.

The solution to the autonomy crisis is delegation, and the next stage of the organizational lifecycle is described as the **delegation stage**. However, once delegation is initiated, usually via decentralization of decision making, the need for further integration arises. This need grows steadily until a **crisis of control** occurs. The response to loss of control is usually to create formal rules and procedures to ensure that decisions are made in the way that management would make them if they could do so themselves. This is the point at which bureaucracy appears; Greiner labeled it the formalization stage.

During the **formalization stage**, the organization continues to grow and differentiate, adding more and more formal control mechanisms in an attempt to integrate an increasingly diverse set of activities through planning, accounting and information systems, and formal review procedures. The tendency to control through bureaucratic means eventually leads to the **crisis of red tape**. The red-tape crisis is what has given bureaucracy a bad name. It is not, however, that bureaucracy is the villain, but rather that, in this situation, management overindulges and ends up with too much of a good thing. Attempts to apply formal rules and procedures in a universal and impersonal manner create an organizational environment that becomes not only ineffective, but increasingly distasteful to workers. Things will generally worsen when management's first response to the breakdown of bureaucratic controls is to

implement even more bureaucracy. The problem reaches crisis proportions when employees either cannot figure out how to make the system of rules and procedures work, or when they rebel against it.

If the organization is to emerge from the red-tape crisis, it will generally proceed to the **collaboration stage**. During this stage the organization uses teamwork as a means of re-personalizing the organization by distributing the now over-differentiated tasks into more recognizable chunks and assigning shared responsibility for them to groups of individuals in ways that render work once again comprehensible. What was too complex or dynamic for rules to regulate can be reorganized into smaller units managed from within by teams that are granted decentralized decision-making authority. A greater focus on trust and collaboration is often required in these circumstances.

The collaboration stage of organizational development requires a qualitative change in organizational form as well as in the integration skills and leadership styles demanded of managers. Instead of the former emphasis on controlling the organization, top management must shift its concern to constantly regenerating motivation and staying focused on organizational goals and purposes. However, if at some point management fails to provide regeneration, the organization will undergo a **crisis of renewal** marked by what in humans would be described as lethargy. The primary symptom of this crisis is employees and managers who suffer from burnout and other forms of psychological fatigue due to the strains associated with temporary assignments, dual authority, and continuous experimentation. According to Greiner, the crisis of renewal will either lead to a new form of organization or to organizational decline and eventual death.

Greiner used his theory to emphasize the point that every stage of an organization's development contains the seeds of its next crisis. This is because the organizational arrangements and management strategies that are adaptive for one stage in the lifecycle will be seen as maladaptive when the organization grows more complex. Therefore, old structural arrangements and leadership styles must be constantly replaced throughout the life of the organization. Greiner's model has been extremely popular, but did little to illuminate *how* the social structure of an organization develops. Daniel Katz and Robert Kahn's theory made up for this deficiency.

An open systems model of the development of organizational structures

According to Katz and Kahn's open systems model, structure first develops out of technical needs and later from internal integration pressures in combination with shifting demands from the environment.[15] At first, a primitive organization emerges from cooperation between individuals who wish to pool their efforts to achieve a common goal, such as bringing a new product to market. This primitive organization is not actually structured in the usual sense of the term because the cooperative effort is more the result of individual motivation than it is an organizational achievement. However, if the primitive organization is going to survive beyond its initial project, it will begin to develop a social structure. The development from primitive to fully elaborated organizational structure will occur in several stages, each of which involves differentiation and integration. Katz and Kahn's model describes these stages.

In the first stage, activities such as purchasing and marketing are structurally differentiated from core production tasks. This initial differentiation is a natural extension of the primitive

production process that also required procurement and disposal processes, but on such a restricted scale as to be easily accomplished by members of the production core who take time away from production to purchase raw materials or distribute output to customers. This stage of differentiation provides the organization with buffering capacity in the sense that it permits employees working to produce organizational output to focus all their attention and energy on transforming raw materials into products. Meanwhile, other individuals specialize in the tasks of purchasing raw materials to feed the transformation process and transferring the organization's products to its environment so that new inputs can be acquired and production can proceed uninterrupted (see Figure 4.3). Katz and Kahn called these **support activities**.

Once the initial differentiation of activities is underway, pressures to integrate begin to appear. In elaborating itself to ensure continuous input of raw material, and production and sale of output, the organization produces three different pockets of activity that can lose track of one another. The three functions of purchasing, production, and sales must be aligned, so that the correct levels of raw materials are brought into the organization and so that production output balances with sales. This requires integration that is usually provided by a general manager who oversees purchasing orders and production schedules while taking sales projections into account.

At this point in the development of its social structure, the organization has usually survived long enough to require maintenance—employees quit and others must be recruited and trained, bookkeeping tasks expand to include corporate tax considerations and financial planning, physical facilities require regular upkeep and modification, and the community may begin making inquiries about the organization and demands regarding its community

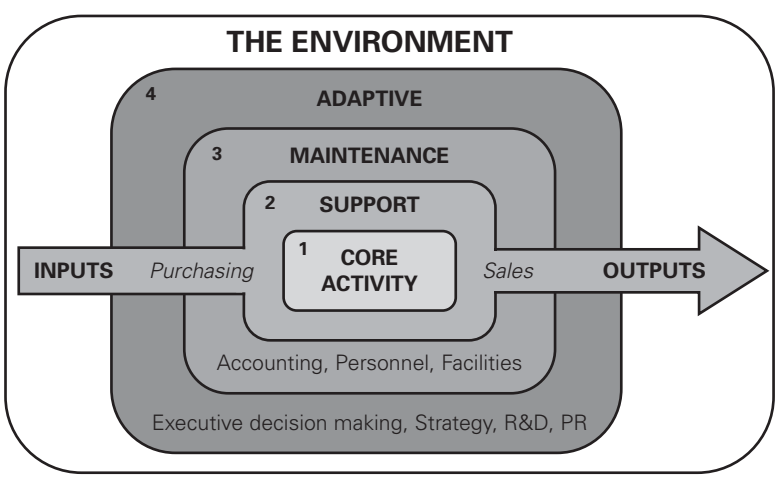

Figure 4.3 Katz and Kahn describe the development of social structure in relation to the needs of the technical core and demands of the environment

According to this theory, a primitive technical core is first elaborated with support structures, then maintenance structures appear, and finally adaptive structures are added.

Source: Based on Katz and Kahn (1966).

involvement. It now becomes necessary to supplement core production and support activities with accounting, personnel, facilities management, and public relations. Katz and Kahn grouped all of these into the category of maintenance activities.

Maintenance activities help to preserve the organization in a steady state of readiness to perform, while the production core does the performing. Because the activities of the maintenance group are not highly interdependent with those of purchasing, production, and sales, the maintenance function can be carried out with considerable independence of the production core. This represents further differentiation of the organizational social structure, which, in turn, demands more integration. The addition of managers to achieve this integration is typical, but now, with multiple managers, a new level of management emerges in the form of an executive to oversee the other managers. Thus integration designed to overcome the problems introduced by differentiation breeds further differentiation by creating hierarchy.

If the organization survives the early stages of development described above, it will probably exist long enough to encounter some change in the environment that affects demand for the organization's product. Such changes create problems for the organization, such as predicting what amount of output will be sold and, thus, what level of raw material needs to be ordered and how much product should be produced. Mistakes in scheduling production runs will be acutely felt as both over- or undersupply of customers' demand can threaten the firm's cash flow position as well as its reputation. If demand for the company's product is waning, new products may need to be developed to keep the organization in business. In order to face these problems, another elaboration of social structure occurs. This one introduces adaptive activities into the social structure.

Adaptive activities are responsible for attending to changes in the environment and for interpreting the meaning of the changes for the rest of the organization. The earliest manifestation of the adaptive function is executive decision making, which in one form or another exists from the beginning. However, other, more specialized, adaptive activities emerge over a longer period of time, including strategic planning, economic forecasting, market research, R&D, tax planning, legal advising, and lobbying.

Structuration theory

The term structuration occupies middle ground between the modern and symbolic perspectives. It combines the static concept structure with the active idea of agency associated with structur*ing* and highlights processes of domination, legitimation, and signification, thereby not only bringing symbolic sensibility into organization theory but critical postmodernism as well.

One of the great debates in sociology has centered on whether structure or human agency has the greater significance in explaining society. In organization theory institutional theorists typically advocate for structure, arguing that institutions are relatively durable social structures (e.g., networks of relationships or exchange patterns) that shape and constrain the behavior of actors operating within a given social system. Other versions of institutional theory focus, as did Selznick's work, on symbolic structures, such as the cultural values in play at the founding of the TVA. Those advocating for agency want to know where structures come from, what sustains them, and how structural change can be explained. They argue that regularities in individual actions and interactions produce the patterns of

relationship that, when viewed at the organizational or societal level of analysis, appear as social structure.

In structuration theory, as developed by British social theorist Anthony Giddens, structure and agency interact—social structures enable and constrain action that constitutes social structure—neither concept supersedes the other in theoretical importance.[16] This idea reminds me of M. C. Echer's famous etching showing two hands drawing each other. Giddens called his idea the **duality of structure and agency**, wherein agents are both enabled and constrained by structures comprised of resources, routines, and expectations. Agents are enabled to the extent that structures of signification, domination, and legitimation support their activity, and constrained whenever they do not. But of course the activities shaped by these structures fuel the next round of structuration, and so on (see Figure 4.4).

Everyone confronts the duality of structure and agency on a daily basis. For example, we construct systems to manage ourselves (e.g., legal systems, bureaucracies) and then tell ourselves we cannot do something because the system will not allow it. Our failure to recognize our complicity in constructing the system prevents us from realizing that it can be changed using the same creative forces that produced it in the first place. We imprison ourselves in our habits, routines, and expectations, all of which are supported by those in power who use their influence to maintain the status quo that keeps them powerful. All the while, minute changes within the ever-present dynamics that produce and reproduce social structure, keep structures from ever attaining more than the appearance of solidity. Accordingly even the most stable social structures are defined by the fragile cooperative movements of their agents.

Giddens explained social system dynamics in terms of three mutually supportive dualities of structure and agency: signification–communication, domination–power, and legitimation–sanction. According to Giddens, these dualities are mediated by different types of rules and resources actors use to construct their structural contexts: interpretive schemes for defining what symbols mean (e.g., language games, discourses, and speech genres), relationships within which the exercise of power occurs (e.g., hierarchy, division of labor), and norms (e.g., found in

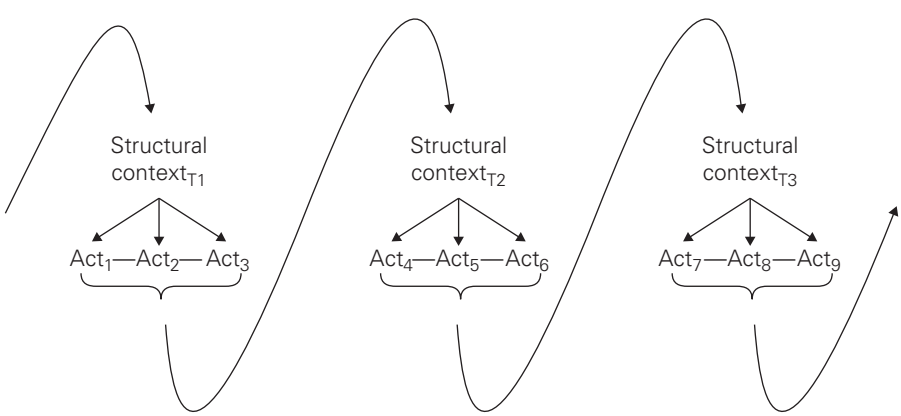

Figure 4.4 The duality of structure and agency

The mutual construction of structure and agency as portrayed in Giddens's structuration theory.

Source: Based on Barley and Tolbert (1997).

the exercise of conformity pressure via socialization and culture). Table 4.4 shows structures, forms of agency, and rules and resources that mediate between them as a matrix of material and symbolic social practices that, through mutual influence, produce the social context and outcomes (both structures and actions) of social systems.

While Giddens was criticized for overemphasizing the agency side of the structure–agency reconciliation, French social theorist Pierre Bourdieu presented two concepts that emphasize the structure side: field and habitus.[17] According to Bourdieu, a **field** is a structure with an internal logic that establishes hierarchical relationships on the basis of the distribution of capital. Bourdieu defined capital as resources used by the powerful and influential to distinguish themselves from those without power or influence. He then claimed that capital takes various forms, one for each field. For example, the cultural field is structured by cultural capital (celebrity status, prestige), the academic field by academic capital (academic reputation and honors), and the economic field by economic capital (wealth).

According to Bourdieu's version of structuration theory, a field is constituted through the signifying practices of its agents whose actions, therefore, are capable of transforming it. Bourdieu used the field of literature as an example. In literature, a subsystem of the cultural field, including authors, critics, publishers, and readers, produces and consumes literary works wherein actors' responses, interpretations, and texts legitimize social differences. The structure of these social differences, in turn, determines which individuals get to have enough power and influence to change the field, which of course they are then unlikely to do unless they are certain it will not affect their standing within it.

Permeating any given field, the **habitus** gives individuals a feel for the game that allows them to know how they and others should behave depending upon their hierarchical position, which, in turn, is determined by the amount of field-relevant capital they control. Because the internal logic of a field can be kept hidden, the habitus can be well protected from outsiders and may operate as tacit knowledge among insiders who thus reproduce the field and its hierarchies without awareness of their involvement. Through the habitus members of a field tap into the rules and resources that Giddens described as the tissue connecting agency and structure.

American sociologists Mustafa Emirbayer and Ann Mische presented a third version of structuration theory that is more temporally sensitive than either Giddens's or Bourdieu's approach, though, like Giddens, these social theorists emphasized agency.[18] Emirbayer and Mische claimed that the key processes by which agents produce structure are: iteration (repetition of past behavior), practical evaluation (as the basis for taking action in the present), and projection (into the future). In the iterative process, agents reactivate their prior patterns of behavior as routines that reproduce existing structures. Practical evaluation allows agents to

Table 4.4 How rules and resources mediate agency and structure

Structures of:	**Signification**	**Domination**	**Legitimation**
Rules and resources mediating structure and agency:	Interpretive schemes	Relationships within which power is exercised	Normative influence
Forms of Agency:	**Communication**	**Power**	**Sanction**

make informed judgments relevant to their ever-changing circumstances and these judgments influence their behavior in ways that either reproduce or change existing structures. Finally, through projection, the possibilities of the future signal creative options that allow for the intentional or even planned reconfiguration of existing structure. Taken together, these three processes help to set structuration in motion by permitting agents to reach both backward and forward in time to structure their present activities.

One thing structuration theory brings home to me is the endless refinement that modernist theorizing begets. I am reminded of the story by the Argentinean writer Jorge Luis Borges about the mapmaker who kept refining his map, making it ever more detailed, until one day his map completely covered the territory he was mapping because only in this way could he make the perfect map. The trouble is, too many refinements to a theory reduce its practical value for summarizing and encapsulating knowledge in useable chunks. Once the map becomes as complex as the territory, who needs the map? Nonetheless, in its attempt to cross the boundary between individual and organizational levels of analysis, and modern and symbolic perspectives, structuration theory makes a bold theoretical move that sets the stage for thinking about organization structure from outside the modern perspective.

Symbolic approaches: Social practices, institutional logics, and community

Imagine the buildings of an organization containing only desks, machines, computers, raw materials, and documents, but empty of people. Does the organization have a social structure? Modernist organizational theorists, drawing from objectivist ontology, would say that organizations are social structural objects consisting of elements such as hierarchy, lines of authority, and accountability, along with various integrating mechanisms. From this perspective you need only analyze such things as organization charts, policies, rules, and coordination mechanisms to confirm the existence of an organization's social structure and draw conclusions about it. Those who take the symbolic perspective disagree, arguing from their subjectivist ontology that an organization's social structure does not exist independently of human consciousness and social interaction. They claim that organizational realities emerge as people work and interact with each other and with the material resources surrounding them. From this perspective the study of organizational structure looks remarkably different from explanations provided by the modernist perspective.

The difference between modernist and symbolic-interpretive perspectives can be summarized in this way: modernist organization theorists see structures as things, entities, objects, and elements, while symbolic theorists see structures as human creations, they are dynamic works-in-progress that emerge from social interaction and collective meaning making. Thus, as Weick argued, there are no organiza*tions*, there is only organiz*ing*.

Along with Giddens's theory of structuration, Weick's insight turns our attention away from understanding social structures as systems for designing and controlling interaction and social relationships, and toward interest in how the everyday practices of organizational members construct the patterns of organizing that guide their actions. In the section on social practices I will introduce you to two practices that figure strongly in theorizing the dynamics of social structure from the symbolic perspective: routine and improvisation.

These practices will show how an organization's activities can be constructed, maintained, and changed through the interactions of their members.

Social practices: Routine and improvisation

In the first years of its alliance with Renault, Nissan senior assembly-line workers and engineers wrote standard operating procedures (SOPs) to help transfer knowledge about effective work practices to their alliance partner. For example, Nissan gave Renault's dashboard assembly-line workers directions that included hand-drawn sketches showing the exact order in which dashboard wires were to be connected, what tools to use, and how to reach the wires.[19] Routines like this have long been regarded an integral part of organizational life that helps to build a stable organizational social structure.[20]

Routines are found everywhere in organizations, from techniques associated with the use of production tools and factory equipment, to the hiring and firing of employees, strategic planning cycles, annual performance evaluations, quarterly reporting, and budget reviews. These and many other routines preserve organizational knowledge and transfer capabilities so that work can be successfully accomplished and coordinated in an uninterrupted stream through time.[21]

Modernist organization theorists have likened routines like Nissan's dashboard wiring process to organizational habits, programs, or genetic codes.[22] However, as American organization theorist Martha Feldman argued, routines contain the seeds of change as well as offering stability. Feldman defined routines as flows of connected ideas, actions, and outcomes and suggested that they emerge as organizational members try to understand what to do in particular contexts when facing specific situations.[23] Routines are endlessly recreated because people do not reproduce actions and behaviors in exactly the same way every time they engage in a routine. For example, a police officer or social worker dealing with an incident of domestic violence knows the expected routine for dealing with the situation because they have been trained in policing procedures and have developed particular ways of dealing with these situations from their own experience. However, such routines can be combined in a variety of ways to deal with the specific circumstances of domestic violence confronted on a given occasion. Differences in the enactment of routines introduce change that subsequently affects the routine itself as variance spreads within the organization or even across organizations (e.g., via institutional mimesis). Alternatively routines may die out through lack of use.

The idea of changing a routine comes close to the concept of organizational **improvisation**.[24] Karl Weick, who has written extensively about this subject as it applies to organizations, proposed viewing organizational structure as an emergent and unfolding process of interacting routines and improvisations with routines operating more like recipes than blueprints.[25] In performing routine activities, organizational members reinforce existing interaction patterns and thereby reproduce organizational social structures to give them a degree of stability. However, incorporating improvisation into routines, organizational members will, at times, interact outside established pathways and perform in the gaps that exist in the current version of a social structure. In doing so they behave like jazz musicians who refuse to play what has been played before and thus deliberately step into new territory. Organizational improvisations may help the organization to react to a threat or take advantage of an

opportunity.[26] Improvisations will disappear once they have served their immediate purpose, or they will either be incorporated into old interaction patterns or used to establish new ones. Once institutionalized through repetition and widespread acceptance, an improvisation becomes routine (which is why jazz musicians do not consider riffs and other repetitions to be 'real' contributions to jazz).

In an article that examined how the structuring of jazz performance applies to organizations, I argued that social structures always have coordination gaps due to the impossibility of structurally interrelating all organizational activities.[27] In order to minimize the problems created by these structural gaps, organizational members might want to adopt some of the techniques jazz musicians use for the purpose of improvising on their structures. For example, jazz tunes are performed in successive waves of improvisation that begin with the playing of the head of a selected tune in a recognizable and often routine way (e.g., think of the first chorus of 'I've Got Rhythm'). The head provides the musicians with a basic structure of melody, harmony, and rhythm to use as a departure point for their playing. As the performance of the tune unfolds, each soloing musician in turn attempts to lead the band away from the originating structure by playing in the empty spaces within that structure (beats not played and the spaces between beats are two rhythmic examples). Different musicians, taking turns soloing, will improvise differently and each successive musician can build on ideas introduced by the others until, collectively, a unique playing of the tune is achieved that nonetheless retains a relationship to its origin in the head. This relationship between old and new is demonstrated at the conclusion of the tune when the musicians replay the head, embellishing it with some of the best ideas their improvising produced. In this way a structure and its empty spaces are combined to create a performance, whether it is of a jazz tune or an organizational process.

The article offered jazz as a metaphor that organizations can use to talk about the ever-present limits of structuring faced by all organizations. It also suggested literally using the same practices jazz musicians use to bring structural stability and flexibility into direct connection. Doing the organizational equivalent of playing jazz could continually renew the social structure by offering new options for organizing even while maintaining some existing routines and practices.

Social structures as institutionalized logics

Institutional theorists interested in the processes by which institutions emerge in the wake of new social practices have compared the dynamics of institutionalization to the formation of social movements. For example, within their study of the history of the recycling movement in the US, American sociologists Michael Lounsbury, Marc Ventresca, and Paul Hirsch explained the emergence of recycling as an institution around which a new industry developed.[28]

Another group of institutional theorists believe that social structures are embedded in and contextualized by **institutional logics** that manifest in the mindsets, cognitive frames of reference, and mental models that configure thought, compel argument, and organize systems within society. As contexts for organizational action, institutional logics make objective behavior dependent upon shared (symbolic) meaning. According to organization theorists Robert Drazin, Mary Ann Glynn, and Robert Kazanjian: 'Structures can become invested with socially shared meanings, and thus, in addition to their "objective"

functions, can serve to communicate information about the organization to both internal and external audiences.'[29]

Notice how these institutional theorists mixed together aspects of both modern and symbolic perspectives. For instance, Drazin and his co-authors used objective ontology in assuming that structures are objects to be invested with meaning, as opposed to being momentarily constructed social realities; yet they also employed interpretive epistemological assumptions such as that organizational meaning is shaped by its institutional context and all knowledge of it must therefore be context-specific. Lounsbury and his co-authors showed similar sensitivity to context by using historical methods in their study of the recycling movement.

Social structure as community

Whereas modernist scholars tend to view a community in objective terms, such as by studying the occupational statuses it confers, those adopting the symbolic perspective focus on how understandings of reality are socially constructed and maintained or changed for a community of people through their recurring interactions and use of shared symbols.

Introduced by educational theorists Etienne Wenger and Jean Lave, the concept of **communities of practice** initially offered an answer to the question of how learning occurs through social interaction.[30] These theorists defined a community of practice as a group of people, informally bound together by common interests in learning and the development of knowledge, who share repertoires (e.g., routines and vocabularies). A community of practice, described as self-designing and self-managing, forms when a group of people collectively develop ideas, knowledge, and practices as they learn together.

Because humans belong to many different communities of practice, each having their own ways of talking that produce a context for local meaning making and identity construction, an organization's social structure can embrace multiple communities of practice, each emerging spontaneously in response to particular interests, needs, desires, or problems. Communities of practice can cross boundaries drawn between business units and project teams, hierarchies, or any other dimension of social structure. Individuals can move between different communities, sharing and brokering knowledge as they do so. Like networks, communities of practice are characterized by connections rather than hierarchical or formalized relationships, making the manager's role one of enabling organizational learning and innovation.[31]

Sometimes organizations attempt to institutionalize communities of practice as IBM Global Services did by defining over 60 internal teams as communities of practice. Created to address issues such as e-business, industry sectors (e.g., distribution, health care), and applications development, they were meant to encourage the formation of emergent networks connecting individuals and groups.[32]

An interesting question IBM's effort raises is whether attempting to institutionalize communities of practice undermined their effectiveness. Did IBM appropriate a concept from the symbolic perspective without understanding fully the differences to modernist ways of managing? The symbolic perspective encourages managers to understand how communities of practice emerge from the problems and interests that employees take responsibility for, rather than proposing issues around which they would like to see communities of practice form and then setting expectations for their formation.

A concept that seems a close cousin of communities of practice, **language community**, is based on Wittgenstein's concept of language games and Foucault's concept of discourse. Organization theorists apply this concept to the ways organizational members talk about their organization in order to see if they can identify distinct discourses or language games within or between organizations, and to find out what individual speech acts reveal about how organizational members coordinate their actions.[33]

A language community dictates what can be said; it structures work through the way it allows words and their associated ideas to be used. By developing shared vocabularies, rhetorical styles, root metaphors, and other distinctive forms of expression, organizational members will come to share particular ways of talking about their organizational experience that will create and maintain features of their organization's social structure, just as enactment theory claims they do in constructing their environment. All this happens within everyday conversations without anyone needing to be aware it is going on, and all the while it influences the activities taking place as these are coordinated through conversations and interactions.

You can see language communities at work by considering the word preferences of organizational theorists who adopt different perspectives. When organization theorists adopt the modern perspective they talk about cause and effect, structures and outcomes, and discovery and explanation, whereas the language of those adopting the symbolic perspective is inflected with terms such as meaning, interpretation processes, and understanding. Contrast these expressions with the terms fragmentation, deconstruction, and discourse employed by postmodernists.

The words you use to express knowledge can give you a sense of objectivity because they appear to stabilize (i.e., enable and constrain) particular features of your reality. While this stability promotes ease of communication and coordinated interaction, according to the theory of language communities this objectivity is only an illusion, a product of intersubjectively constructed interpretation shaped by language use. Hence language communities are filled with potential for change and thus, paradoxically, embody both stability and instability.[34] Their properties of instability and illusion link them to the postmodern concept of discourse.

Postmodern social structure: De-differentiation, feminist organizations, and anti-administration

Many postmodernists believe reality is formless and fragmented, an illusion, a simulacra perpetrated on us by the ways in which we use language; there is no hidden stable order as intimated by the concept of structure, surface is everything and so superficiality prevails. As you might expect, postmodernists are extremely skeptical of modernist organizing principles expressed in terms like hierarchy, centralization, control, and integration. They insist that no structure defines existence; only words can legitimize concepts and these most often help those in power maintain their dominance over unsuspecting others. Therefore, they deconstruct concepts, structures, and management practices to reveal how they presuppose order, rationality, or the need for managerial control, thereby showing the ways in which concepts and theories always privilege some while exploiting and/or marginalizing others.

Bureaucracy particularly draws the ire of postmodernists. Recall that even Weber saw its dark side in the drive for rationality, calculation, and control that increases technical efficiency at the cost of exercising free will. Critical postmodern theorists have applied Weber's metaphor of the iron cage to examinations of how social life is colonized and freedom subverted by rationalistic ideologies and the structures and control mechanisms they depict as necessary.

In an influential series of articles, British organization theorists Robert Cooper and Gibson Burrell depicted modernist organization theory as concerned entirely with formal organization, an expression of their drive to create order out of disorder. They associated the term formal with words like unity, distance, routine, and rational, claiming that these associations define a moral code built upon suppressing disorder. Acceptance of this moral code is predicated on the fear that arises when the villainized term disorganization (associated with the chaos of the informal, local, spontaneous, and irrational) is presented in relation to the privileged term organization.[35] The modern desire to suppress disorganization hides any phenomena and people associated with it behind a wall of silence and repression.

Many deconstructionists do not specify alternative constructions to those they attack—they believe doing this would only impose different Grand Narratives. Nonetheless, some suggest that by deconstructing taken-for-granted ideologies and practices, a space for new organizing possibilities opens. Into this space alternatives inspired by postmodernism find room to grow, including the concepts of de-differentiation and feminist organization, and anti-administration theory.

De-differentiation

Recall that Lawrence and Lorsch defined differentiation as the division of the organization into different hierarchical levels and specialized departments. Their theory suggests that differentiation produces a need for integration, which creates more differentiation, and so on, thus locking organizations into continuous developmental trajectories such as were described by Greiner, and Katz and Kahn. In opposition to these modernist theories, postmodernists offer the concept of de-differentiation.

British sociologist Scott Lash claimed de-differentiation marks the defining moment of postmodernism in that it reverses the modernist progression of ever greater specialization and separation, for example of rich and poor, weak and powerful, right and wrong. Borrowing Lash's idea, Australian organization theorist Stewart Clegg accused today's over-differentiated organizations of causing their members to experience them as incoherent, thereby creating dependence on elite members of the hierarchy who then gain the power necessary to define organizational reality.

An antidote to such organizational malevolence, Clegg claimed, can be found in de-differentiation, which is not the same thing as integration.[36] Whereas integration implies the coordination of differentiated activities, de-differentiation reverses the very conditions of differentiation that created the need for integration in the first place. In de-differentiation, organizations integrate activities, not through hierarchical or structural elaboration, but by allowing people to self-manage and coordinate their own activities. De-differentiation satisfies the emancipatory interests of critical postmodernists by undermining the controlling mindset they believe dominates modern thinking, even as it aligns with symbolic ideas like communities of practice.

The self-organizing or semi-autonomous team concept from socio-technical systems theory likewise offers an example of de-differentiation from the modernist perspective. Workgroups organized as semi-autonomous teams are given responsibility for a broadly defined set of tasks; they schedule their own time and monitor, assess, and correct their performance, including quality. For example, in Volvo's Kalmar Plant in Sweden, entire automobiles were assembled start to finish by teams of self-managing workers. Examples like Kalmar's suggest that integration can be achieved independently of hierarchy. Thus de-differentiation makes it easier to imagine democratic organizations in which integration and coordination are the responsibility of everyone and not just management's concern. This is the idea behind labor-managed firms such as United Airlines or the John Lewis Partnership that operates department stores in the United Kingdom, both of which are owned and operated by employees. However, some postmodernists warn that these types of organization will turn out to be just another servant of managerial interests, one that projects an image of democracy, autonomy, and self-management, but that merely disguises the power struggle by dressing it in new clothes.

Feminist organizations

You may remember from Chapter 2 that the notion of *différance* challenges the modernist focus on presence (things we take to be entities and objects) suggesting instead that meaning resides in the continuous movement between what is present and what is absent in our language. This means that we can use oppositional logic to deconstruct the assumptions and practices associated with modernist ideas of structure as presence, thereby exposing its absences for further examination.

For example, feminist scholars have deconstructed bureaucracy to show it as a male-gendered and typically white male-dominated form of organization.[37] They propose that bureaucracies privilege and justify hierarchy by claiming that power and position are based on the objectively rational criteria of technical competence, yet these organizations define the terms objective, rational, and competence from a white male-centered viewpoint that results in the domination of women, people of color, and minorities. These gender- and race-based structures, reinforced through unspoken assumptions and taken-for-granted objectifications, exist within and are supported by modernist organizational discourses. In modernist discourse, individual performance is generally evaluated against formal criteria such as decisiveness and the possession of leadership qualities. Feminists claim that criteria like these are defined in ways that favor the male gender. In contrast, feminist organizations (e.g., women's health centers, domestic violence shelters) evidence more equitable and flexible structures, participatory decision making, cooperative action, and communal ideals. In feminist organizations men and women, people of different ethnicities, young and old experience greater equality than do members of traditional (modernist) bureaucracies.

One hybrid form based on postmodern and feminist theories is Karen Lee Ashcraft's idea of feminist bureaucracy.[38] Critics have challenged both bureaucratic and feminist forms, in particular the dominating tendencies of the former, and the sustainability of the latter when faced with growth and demands for formalization by funding organizations. Ashcraft's hybrid keeps the seemingly incompatible elements of bureaucratic and feminist characteristics in simultaneous play as organizational members do their work. For example, tasks will be

formal and informal, specialized and general, and hierarchy and centralization will exist but constantly be challenged by egalitarian and decentralized practices. Ashcraft's research in a non-profit organization concerned with domestic violence studied the interplay of bureaucratic elements and necessities (a hierarchical organization chart) with feminist ideals of ethical communication (the right to express views and emotions and to be heard). This hybrid employed the tensions between its contradictory elements to help it cope with paradoxical pressures (e.g., bureaucratic conditions associated with getting external funding and the need to stay small, flexible, and responsive to individual clients) to achieve its goal to serve abused women.

Anti-administration theory

David Farmer, an American philosopher and economist, suggested that we can counteract the logic of bureaucratic administration by confronting it with anti-administration, much as matter and anti-matter annihilate one another.[39] Government bureaucracies serve their political masters and enforce justice by privileging hierarchy, efficiency, and technical expertise. Anti-administration theorists deconstruct this view and surface its oppositions. Farmer did not advocate anarchy, instead he argued that anti-administration is part of the administrative act, a part that involves radical skepticism toward its ends, means, and hierarchical rationality. By engaging in anti-administration, administrators reflect on presence and absence in their policies, procedures, and actions to deepen their understanding of the implications of their administrative actions. Bureaucratic justice is normally equated with the rationality and efficiency of actions—what happens if we juxtapose these values with moral justice? Instead of imposing justice based on rationality, administrators might be persuaded to concentrate on removing injustice.

Summary

Every organization consists of social elements including people, their positions within the organization, and the groups or units to which they belong. Three types of relationship among people, positions, and units used by modernist organization theorists define social structure as hierarchy, division of labor, and coordination mechanisms. The division of labor indicates who does what in terms of task assignments. Task assignments in turn create expectations about who is dependent upon whom. The hierarchy of authority defines formal reporting relationships, but these only account for some of the interactions necessary to support an organization. Coordination mechanisms, ranging from formal rules and procedures to spontaneous hallway conversations, further define and support the social structure of the organization. Classical dimensions of social structure that continue to interest modernist organization scholars include complexity, centralization, and formalization. These dimensions offer a means of distinguishing between mechanistic, organic, and bureaucratic organizations.

Contingency theory offers a way to combine empirical findings about multiple dimensions of social structure. For example, contingency theory has demonstrated that small organizations

operating in stable environments are best organized as simple structures with minimal hierarchy and highly centralized decision making. However, as organizations grow in size (number of employees), they differentiate thereby increasing the number of hierarchical levels and departments, which causes them to add integrative mechanisms such as rules, liaison roles, and/or cross-functional teams. Formalization will come along with the increased routineness of work tasks that is likely to accompany the specialization introduced by the greater division of labor in large organizations. Unstable environments and internal differentiation mean that organizational structures will require decentralization so that decisions do not overburden the hierarchy and can be made at the point of knowledge. And on it goes. As new contingencies are discovered, new webs of relationships can be spun out from the findings of contingency research.

Symbolic-interpretivists see social structure as emerging from relationships that form through human interaction. Individuals interact and over time these interactions stabilize into recognizable relationships that define the social structure and contribute to the ways that work is accomplished. These relationships link the formal hierarchical positions into groups and the groups into departments and divisions. However, although structure serves to direct and constrain deviations from expected patterns of behavior, structuration theory reminds us that these constraints are nothing more than our willingness to do things in routine ways. Structuration theory stresses that social structure both influences and is influenced by the everyday interactions of the members of the organization.

Postmodernism and network organizations challenge many modernist ways of looking at social structure, focusing research attention instead on processes and relationships. Symbolic-interpretive and postmodern perspectives remind us that organizations have other resources beyond the social structure to aid in the integration of differentiated activities, as you will see in Chapters 5, 6, 7, and 8 on technology, organizational culture, physical structure, and power.

Key terms

structure
bureaucracy
division of labor
departmentalization
hierarchy
formalization
specialization
organizational forms
- *mechanistic*
- *organic*

centralization
innovation
differentiation
- *horizontal*
- *vertical*

integration
size
organizational design
- *simple structure*
- *machine bureaucracy*
- *professional bureaucracy*
- *divisionalized form*
- *adhocracy*

organizational DNA
organizational lifecycle
- *entrepreneurial stage*

- *leadership crisis*
- *collectivity stage*
- *autonomy crisis*
- *delegation stage*
- *crisis of control*
- *formalization stage*
- *crisis of red tape*
- *collaboration stage*
- *crisis of renewal*
- *decline and death*

open systems model

- *support activities*
- *maintenance activities*
- *adaptive activities*

structuration theory

- *duality of structure and agency*
- *field*
- *habitus*

routines

improvisation

institutional logics

communities of practice

language community

de-differentiation

feminist organizations

anti-administration theory

Endnotes

1. See Weber (1946, 1947).
2. http://www.sco.ca.gov/ppsd/empinfo/demo/index.shtml (accessed October 23, 2003).
3. Hage (1974); Rousseau (1978).
4. Donaldson (1996: 57).
5. The link to communication was established later by Galbraith (1973).
6. Lawrence and Lorsch (1967).
7. Pugh et al. (1968); Pugh and Hickson (1979).
8. Grinyer and Yasai-Ardekani (1980).
9. Pugh et al. (1968, 1969); Blau and Schoenherr (1971); Mansfield (1973).
10. McDonald's website http://www.aboutmcdonalds.com/mcd/our_company.html (accessed February 2012).
11. McDonald's website http://www.mcdonalds.com/corp/values/socialrespons/sr_report.html (accessed April 2005).
12. Mintzberg (1983).
13. McKelvey (1982), the idea of genetic material was first introduced to organization theory by Nelson and Winter (1982).
14. Greiner (1972).
15. Katz and Kahn (1966).
16. Giddens (1979, 1984); see also Ranson, Hinings, and Greenwood (1980); Riley (1983); Barley and Tolbert (1997).
17. Bourdieu (1980/1990).
18. Emirbayer and Mische (1998).
19. Yoshino and Fagan (2003: 9).
20. See, for example, Stene (1940) and Cyert and March (1963).
21. March (1991); Argote (1999).
22. Huber (1991); Stene (1940) used the metaphor of habits; March and Simon (1958) suggested the metaphor of programs; the metaphor of genetic material was introduced by Nelson and Winter (1982), see also McKelvey (1982).
23. Feldman (2000); Feldman and Pentland (2003).

24. See Kamoche, Cunha, and da Cunha (2002) for a recent selection of influential articles on organizational improvisation.
25. Weick (1998).
26. Moorman and Miner (1998a, b) described the role improvisation plays in aiding new product development teams.
27. Hatch (1993).
28. Lounsbury, Ventresca, and Hirsch (2003); see also Lounsbury (2005).
29. Drazin, Glynn and Kazanjian (2004:162).
30. Lave and Wenger (1991).
31. Brown and Duguid (1991).
32. Gongla and Rizzuto (2001).
33. Examples include Meyer and Rowan (1977); Hirsch (1986); Grant, Keenoy and Oswick (1998); Cunliffe (2001); deHolan and Phillips (2002).
34. Shotter (1993).
35. Cooper and Burrell (1988).
36. Clegg (1990).
37. Ferguson (1984); Martin (1990); Eisenstein (1995); Gherardi (1995).
38. Ashcraft (2001).
39. Farmer (1997).

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