

Introduction and Themes

Why are organizations important? They are the fundamental building blocks of modern societies and the basic vehicles through which collective action occurs. Their products constitute the infrastructure of societies, shaping the context for organizations of succeeding generations. Through organizations, people pursue activities too broad in scope to be accomplished by individuals or families acting on their own. Accordingly, organizations mediate the influence of individuals on the larger society. For example, most news headlines in the mass media concern the actions of organizations, such as the International Monetary Fund, the World Cup Organizing Committee, or the Microsoft Corporation. Wherever an organization succeeds in attracting enough people and resources, centers of potential social action are created. They mold the social landscape, as individuals affiliate with or abandon them (Ahrne, 1994). We need to know more about how organizations emerge and grow.

Opportunities for the creation of special-purpose organizations increased with urbanization and with economic, political, and social differentiation. The resources required to construct organizations grew more abundant with the development of a money economy and the spread of literacy (Stinchcombe, 1965). The spread of legal institutions protecting property transactions and economic participation created a stable context within which entrepreneurs could look forward to appropriating the gains from organizational foundings (Collins, 1997). Consequently, organizations, rather than individuals or families, became the units of stratification in modern societies. Families now gain or lose wealth through their organizational affiliations, not their historic lineage.

Organizations are shaped by the contexts in which they are established. Thus, contemporary organizations reflect the impact of their historical origins in societies characterized by growing affluence and competition over the control and distribution of wealth (Roy, 1997). Innovations in organizational structures, made possible by the growth of supportive legal, financial, and logistical infrastructures in 19th-century industrial societies, spurred the development of huge organizational projects. In the United States, for example, large national railroads emerged as people struggled to find methods of overcoming the problems of coordinating the passage of shipments across hundreds of miles of rugged terrain (Chandler, 1977). In the 20th century, the production of mass-market consumption goods, such as automobiles and televisions, was made possible by the rise of large vertically integrated manufacturing firms (Lawrence and Dyer, 1983).

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Similarly, in the public sector, welfare-state social policies are now implemented through large government agencies that can process thousands of cases on an impersonal and universalistic basis (Orloff and Skocpol, 1984). When the United States found itself behind in the 'race into space' in the early 1960s, President Kennedy committed the nation to putting a man on the moon within the decade, and he created an enormous organization – the National Aeronautics and Space Administration – to accomplish the task. In many industries, employment agencies and brokers affect the allocation of well-paying jobs and structure the careers of workers in the industry. For example, elite talent agencies in Hollywood have had a significant effect on the employment rates and earnings of television and movie writers (Bielby and Bielby, 1999).

Major tasks in many domains are addressed not by single organizations, but by sets of interdependent organizations. *Policy domains* consisting of government bodies, corporations, political groups, and non-profit associations, collectively influence governmental policy formation and agenda setting (Laumann and Knoke, 1987). The National Cooperative Research Act of 1984 allowed businesses that normally compete with each other to establish consortia for conducting research on processes or products that benefit an entire industry (Aldrich and Sasaki, 1995). Interorganizational arrangements between hospitals, doctors, and university laboratories have been created by the National Cancer Institute to coordinate cancer research and treatment, and interorganizational arrangements have replaced asylums for the delivery of mental health services at the community and societal levels (Scott and Black, 1986).

The concentration of power in organizations contributes not only to the attainment of large-scale goals, but also to some troublesome actions (Coleman, 1974; Vaughan, 1999). Some of the negative consequences of organized action arise as by-products in the normal course of business, whereas others are the result of callous disregard of the public interest. During the 'Love Canal' episode in Buffalo, New York, hazardous waste contamination was the result of the careless disposal of unwanted hazardous materials by chemical manufacturers (Levine, 1982). Price-fixing scandals in the heavy electrical equipment industry (Baker and Faulkner, 1993), insurance fraud in the health care industry (Vaughan, 1983), and accounting scandals at Enron and WorldCom provide further examples of the capacity of organizations to do harm as well as good. Complex technical systems managed by organizations, such as airline transportation or nuclear power plants, periodically have 'normal accidents' with catastrophic consequences (Perrow, 1999).

Organizations disband at a high rate in modern societies. By *disband*, we mean that an organization ceases to exist as an operating entity, for whatever reason. Not all marginal, non-competitive, or troubled organizations disband quickly. Many marginal organizations linger on, declining or deteriorating over a period of years or even decades (Meyer and Zucker, 1989). For organizations that permanently shut down, dramatic events such as organizational bankruptcy may stigmatize owners and managers (Sutton and Callahan, 1987). Owners and managers are not the only people affected by organizational disbandings, as losing one's job at a declining or downsizing organization can also be a traumatic experience for workers (Cappelli et al., 1997). Because many workers' identities and sense of self-worth are bound up in their jobs, business closures can severely shake their self-confidence. Conversely, other workers – particularly those in skilled high-technology fields – have come to accept more contingent relationships with their employers (Barley and Kunda, 2004).

As organizational participants and publics, we seem to have an ambivalent feeling about the organizations in our lives (Smelser, 1998). First, we might consider organizations as our servants, making possible an infinitely more varied and full life than would otherwise be possible. Optimistically, history shows organizations serving *our* needs. Second, we might view the growth of an organizational society as a record of people enslaved and dominated by organizations, subject to arbitrary and impersonal dictates, and nearly powerless to fight back (Perrow, 1991; Roy, 1997; Weber, 1963: 203–204). Some have even argued that, in postmodern society, the issue is no longer relevant – individuals have ceased to exist (Baudrillard, 1983). These contradictory images motivate much of the literature on organizations in the scholarly and popular press. Writers assert that the tension between individuals and organizations can be a liberating, alienating, or destructive force. Whatever the answer, organizations constitute the dominant feature of the modern social landscape.

Our goals for this book

We had three goals in mind in writing this book. First, we wanted to write about the challenges of studying *organizations*, not just organizational theory. Organizations are fascinating social units, of many shapes and sizes, but most of them are overlooked by the field of organization studies. Driven by data convenience and substantive biases, contemporary books and journals tend to focus heavily on publicly traded firms, numbering around 7,000 businesses in the United States. The millions of organizations that are neither listed on any stock exchange nor staffed by graduates of business schools appear less frequently in our research, except in sub-fields like entrepreneurship. Of course, we do not mean that this book is a handbook of organizational statistics, devoid of theoretical interpretation. We do seek, however, to ground the book in research designs that capture organizations in all their diversity, rather than to write as if the Fortune 500 were the only creatures in the organizational zoo. We focus primarily on businesses, but other kinds of organizations are also covered.

Second, we wanted to write about the *emergence* of organizations, not just their existence. Organizational scholars have done an excellent job in explaining how things work in organizations that have been around for a while, but not how they came to be that way. In contrast, we are interested in the genesis of organizations, organizational populations, and communities. Even really large organizations started small, usually, but the absolute miracle of their creation does not seem to interest most organization theorists. It should. Without understanding why and how new social units emerge, we miss the connection between the ongoing creative ferment in human societies and the particular realizations of it in organizations. Thus, we give more attention to the early days of organizations, populations, and communities than do most other organization studies' books and articles.

Third, we wanted to write about the *evolutionary processes* through which new organizations, populations, and communities emerge, using an approach that cuts across academic disciplines. We have been disappointed that most research on organizations focuses on structure and stability rather than emergence and change. By ignoring the question of origins, researchers have also avoided the question of why things persist. In contrast, the evolutionary approach treats origins and persistence as inseparable

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issues. In doing so, evolutionary models encompass many levels and units of analysis and thus typically take an inter-disciplinary perspective on change processes.

The eclectic nature of organization studies draws scholars from economics, history, political science, psychology, sociology, and elsewhere. Disciplinary boundaries have never meant much in organization theory, and members of particular theory groups publish in topical as well as discipline-based journals. We use an evolutionary approach, as we explain in Chapters 2 and 3, because it is a generic framework that can address various theoretical paradigms. Applicable at multiple levels, it directs our attention to the processes of variation, selection, retention, and struggle that jointly produce patterned change in evolving systems. In the early chapters of this book, we use it to portray how new organizations emerge as people mobilize resources in pursuit of opportunities. We focus on time measured in weeks and months. In later chapters, we focus on time measured in years and decades, as we examine the historical context in which organizations, populations, and communities evolve. We show how an evolutionary approach helps us connect history and social structure.

In keeping with our theme of depicting the full variety of organizations in industrial societies, we present some information on the organizational landscape. We show the similarity in organizational size distributions across societies, as well as the enormous disparity between the tails of the distributions. Finally in this chapter, we describe our plan for the book, indicating the topics we will cover in each chapter and the logic underlying their order.

Organizations: an overview

After we explain the three dimensions of our definition of formal organizations, we examine the shape of the organizational landscape in the United States and Western Europe.

Definition of organization: the three dimensions

What are organizations? A simple definition is that organizations are goal-directed, boundary-maintaining, and socially constructed systems of human activity (Aldrich, 1979). This definition focuses attention on the social processes involved in the genesis and persistence of organizations. Some definitions add other criteria, such as a deliberate design, the existence of status structures, planned durability, orientation to an environment, and substitutability of personnel (Meadows, 1967; Scott, 2003). However, we believe these features follow from the three key processes marking off organizations from other types of social units, such as families and friendship circles. Organizational analysis of other types of social units is certainly possible, but we focus on goal-directed organizations.

Goal direction

Goal-directed behaviors and the deliberate design of activity systems are features marking organizations off from other collectivities, such as families and small groups. Organizations are purposive systems in which members behave as if their organizations have goals, although individual participants might personally feel indifferent toward

those goals or even alienated from them. In some cases, organizational goals are codified explicitly in the form of charters, mission statements, and strategy documents (Saloner et al., 2001). More often, however, goals are implicit, complicating the distinction between members' and organizational goals, as well as the definitional division between organizations and other collectivities.

Concerted collective action toward an apparent common purpose also distinguishes organizations from social units such as friendship circles, audiences, and mass publics. Such social units typically do not have a focused agenda and are easily deflected into aimless or purely sociable activities. By contrast, comparisons of actual outcomes to desired targets have a substantial effect on whether organizations will continue a line of action or change it (Simon, 1955). Because many organizational forms are now institutionalized in modern societies, people readily turn to them or construct them when a task exceeds their own personal abilities and resources (Meyer and Rowan, 1977; Zucker, 1988). For example, people raising funds for social or political causes almost always set up a voluntary association, complete with a charter, officers, a bank account, and regular meetings (Knoke, 1990).

Goal setting by owners or leaders must take into account potentially conflicting preferences of other organizations and individuals supplying their resources. For example, participants must be enticed or coerced into contributing to the organization's activities: businesses pay people to work for them, and many non-profit organizations offer more intangible benefits, such as sociable occasions. Because organizations need resources from their environments, they are subject to diverse uncertainties, and may be vulnerable to exploitation or external control if they depend on outsiders (Pfeffer and Salancik, 1978). Contemporary research often focuses on how these external dependencies are managed by organizations, thus highlighting the second dimension of our definition: the boundary between organizations and their environments.

Boundary maintenance

Organizations share their feature of socially constructed boundaries with other types of collectivities. In contrast to those collectivities, however, organizations tend to establish an authoritative process to enforce membership distinctions. For example, large businesses have human resource management departments that select some people and exclude others, creating a strict distinction between 'employees,' who are entitled to organizational benefits, and 'non-employees,' who are not. Voluntary associations have membership committees that perform similar functions. Distinctive symbols of membership may include unique modes of dress and special vocabularies. In leisure parks, such as Disney World, employees' personal identities disappear under their costumes and they become 'cast members' and 'performers' (Van Maanen and Kunda, 1989). The establishment of an organization implies a distinction between members and non-members, thus setting organizations off from their environments (Weber, 1978).

From an organization's perspective, survival as an entity depends on its ability to control its boundaries. Using the criterion of boundary-maintenance, friendship circles or casual associations would not be considered organizations, whereas most social clubs and fraternal associations would be. Circles or casual groupings of people are relatively easy to enter and exit, possessing a fleeting existence, at best. Boundary-maintaining processes become visible on occasions when they are severely tested. For example, they became visible when ethnic minorities in the United States first

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sought admission to exclusive social fraternities, country clubs, and elite law firms (Smigel, 1964).

In some theories of organizations, boundary maintenance includes stripping away or attempting to control those aspects of personal identity and external commitments that would interfere with rational decision making (Weber, 1978; Simon, 1997). Emotional attachments cloud judgment and may lead people into ‘irrational’ decisions. Organizations are thus structured in ways to suppress or at least compensate for the excess baggage that people bring with them. Such theories build on assumptions about human behavior that feminist theorists, among others, reject. Mumby and Putnam (1992: 471–474) argued that *bounded rationality* isolates and suppresses ‘the emotional/physical self from the process of organizing.’ They argued for an alternative model of *bounded emotionality*, in which ‘nurturance, caring, community, supportiveness, and interrelatedness are fused with individual responsibility to shape organizational experiences.’ Their critique highlighted the difference between models of organizations generated by management theorists, concerned with organizational effectiveness, and more encompassing models, concerned with understanding how and why organizations have evolved. For our purposes, the concepts of bounded rationality and bounded emotionality both emphasize the embeddedness of organizations in their environments.

Activity systems

Organizations have activity systems for accomplishing work, which can include processing raw materials, information, or people. Activity systems consist of bounded and interdependent role behaviors – sets of routines and bundles of activities (Nelson and Winter, 1982). The interdependencies are often contingent upon the techniques used (Thompson, 1967). We use the term *routines* as a generic term, following Levitt and March (1988: 320): ‘the forms, rules, procedures, conventions, strategies, and technologies around which organizations are constructed and through which they operate.’ Although routines have traditionally been viewed as sources of organizational inertia and inflexibility, more recent accounts stress their evolutionary and dynamic properties (Feldman and Pentland, 2003).

Many routines are inter-personal, but many others require that humans interact with non-humans (e.g. machines and other artifacts), and the study of such interactions has spawned an extensive literature on technology and innovation (Bechky, 2003; Zuboff, 1988). Indeed, Latour (1993) argued that sociologists have been unable to really understand organizations because such complex units are more than just the sum of their human members. He asserted that theories must take account of people in organizations interacting with non-people, such as products and technologies. Under their own power, machines often act without discernible human intervention, and the results of their actions can pose constraints for the machines’ nominal owners.

The division of labor between activities in organizations leads to role differentiation and specialization of functions. In smaller organizations, *role differentiation* – people fulfilling different roles in the organization – may simply involve a difference between a leader or manager and other members. Larger organizations are typically highly differentiated. During the 1960s and into the 1970s, researchers investigated the relation between organizational size and role differentiation (Blau, 1970; Child, 1973). They found that organizational growth produced problems of coordination and control, resulting in attempts to simplify structures and create new subunits and divisions (see Cullen et al., 1986, for a review).

Within organizations, goal direction and boundary maintenance manifest themselves as issues of coordination and control, as authorities construct arrangements for allocating resources or integrating the flow of work. These internal structures affect the perceived meaning and satisfaction of individual participants by, among other things, differentially allocating power and affecting the characteristics of jobs. *Control structures* – arrangements that shape the way participants are directed, evaluated, and rewarded – are constrained by participants' multiple external social roles. Some complement, but others conflict with organizational roles. Over the past few decades, organizational sociology has gradually expanded its scope to include more of the external uncertainties associated with organizational life.

With few exceptions, organizations are not self-sufficient. They must depend on interchanges with their environments for their sustenance. Environments include technical elements – information and other resources – directly tied to the accomplishment of work, as well as cultural or institutional elements – rules, understandings, and meanings about organizations – that are shared in the wider society (Meyer and Scott, 1983). Early attempts to theorize about relations between organizations and environments attempted to sharply demarcate the two and sought taxonomies of environments (Emery and Trist, 1965). Following the insights of institutional and social network theorists, we now recognize that environmental influences penetrate organizations in many different ways.

The organizational landscape

In keeping with a central theme of the book, we should know the contours of the organizational landscape before theorizing about it. Discussions of organizations in books and journals often nourish an aura of unreality among scholars, conveying an image of organizations as monolithic behemoths with massive power. On the contrary, the vast majority of organizations are small and short-lived, coming and going on a much shorter timescale than the humans who create and run them (Kaufman, 1985). A comprehensive understanding of organizational evolution must recognize this reality. We can start by recognizing the limitations of information commonly used in our research.

Historically, the broad field of organizational studies has examined many types of organizations. Researchers have studied government agencies (Blau, 1955; Selznick, 1949), churches and non-profit organizations (Gusfield, 1963), educational institutions (Clark, 1970; Stinchcombe, 1964), and various forms of for-profit organizations. However, much contemporary research shows a bias toward large, publicly held organizations, and this bias affects the kinds of organization theory we build (Clegg and Hardy, 1996). A similar problem of selection bias affects research on other events which are the outcomes of historical processes, such as comparative studies of political systems (Geddes, 1990).

Corporations constitute a minority of all businesses, and publicly traded firms are a minority of all corporations. In the United States, publicly traded firms on the three national and several local stock exchanges comprise around 7,000 businesses, amounting to less than two-tenths of one percent of all organizations using a corporate form. Many organization researchers, especially those interested in financial performance measures, rely on this small set of publicly traded firms because data is readily available

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in reports filed with the Securities and Exchange Commission, the Federal Trade Commission, and other organizations. However, when only the oldest and largest firms constitute our samples, many historical details are lost. We miss the process by which organizations aged, evolved through periods when competitors were eliminated, and developed the distinctive differences that made them hardier than their peers.

Industrial societies contain a substantial number of organizations, but most are quite small. Over 5.7 million businesses with at least one employee were active in the United States in 2001 (Small Business Administration Website FAQ, 2004), and there are thousands of governmental, non-profit, membership, and voluntary associations. For example, in 2004 there were 15,000 American Legion posts, 1,000 local League of Women Voters groups, 7,710 Rotary clubs, 2,100 local Elks lodges, and 2,200 adult branches of the NAACP. In 1991, almost 70 percent of all Americans reported belonging to at least one association (Schofer and Fourcade-Gourinchas, 2001). Over 3 million belonged to the American Legion and over 1 million to an Elks lodge. Figures for voluntary association membership are similar in other nations (Curtis et al., 1992).

How can we learn more about the actual organizational landscape? Detailed information on businesses in the United States and other countries has been rather sporadic in the past, but it has improved as governments have sought more detailed information on which to base economic policy decisions. In the United States, the Small Business Administration (SBA) has assumed most of the responsibility for collecting and publishing data on businesses, using information from other government agencies as well as the private sector. Because the various agencies involved have used somewhat different definitions and cover slightly different target populations, comparability across data sources and years is highly problematic. In the Appendix, we briefly review the relative merits of research designs that have been used to collect information on formal organizations.

Given the wealth of organizational statistics that are available, we now highlight three descriptive features in particular, presenting cross-national data when possible. First, the size distribution of businesses and non-profit organizations is highly skewed, with a small number of very large organizations. Second, although the number of large organizations is small, they tend to achieve a dominant share of resources (e.g. revenues and assets). Third, even though most people work for large organizations, smaller organizations have a relatively large share of all employees.

Although the data we present below are contemporary, readers should recognize that the properties we identify have been stable features of the organizational landscape for some time. For instance, the skewed distribution of business organizations was already a well-known empirical fact in the 1950s (Simon and Bonini, 1958) and commentators recognized the importance of small organizations as employers long before recent booms in entrepreneurial activity (Granovetter, 1985). From an evolutionary perspective, then, an important theoretical question is how these properties persist in the aggregate, alongside tremendous variation in the composition of the organizational landscape over time. As discussions in the theoretical literature and in later chapters make clear, these properties arise because of basic evolutionary processes, such as organizational founding, growth, and dissolution (Simon and Bonini, 1958; Carroll and Hannan, 2000).

Most organizations are small

The size distribution of business firms tends to be log-normally distributed, as does the size distribution of voluntary associations (see Sutton, 1997, for a review). At one tail of the distribution, there are a very large number of small organizations. At the

Table 1.1 Size of firms by industry: United States, 2000

	Percent of firms* in size class			Percent of employees working in firms with 100 or more employees
	Size class	Size class	Size class	
	1-19	1-99	100+	
All	89.1	98.2	1.8	64.2
Agriculture, Forestry, Fishing, and Mining	89.8	97.5	2.5	57.1
Construction	91.1	98.9	1.1	30.0
Manufacturing	72.3	93.2	6.8	76.3
Transportation, Communications, Public Utilities	86.6	96.9	3.1	77.5
Wholesale Trade	85.2	96.8	3.2	53.0
Retail Trade	90.1	98.4	1.6	65.0
Finance, Insurance, Real Estate	92.6	98.1	1.9	70.1
Professional Services	93.3	98.8	1.2	49.5
Administrative Services	87.5	96.3	3.7	77.4
Educational Services	74.7	93.6	6.4	72.8
Health Care and Social Services	87.7	96.8	3.2	70.5
Accommodation and Food Services	79.9	97.6	2.4	54.1
Other Services	89.2	96.6	3.4	55.7

*Only firms with employees are included in the percentages

Source: Small Business Administration (2002), Table A.7

other tail, a small number of very large organizations exist. In 2000, the SBA estimated that 89.1 percent of the approximately 5.7 million firms with employees in the United States employed fewer than 20 workers, as shown in Table 1.1. Over 98 percent of all firms employed fewer than 100 employees. Nearly 99 percent of EU-based firms employed fewer than 50 employees, and over 92 percent employed fewer than 10 workers, although this proportion varied by country, as shown in Table 1.2. In 2002, over 99 percent of Japanese establishments employed fewer than 100 employees (Japan Statistics Bureau, 2001: Table I-4-1).

Large firms are economically dominant

Second, measured by assets, large firms dominate the corporate world. In 2000, most of the approximately 5 million corporations in the United States had less than \$100,000 in assets, and they accounted for less than 0.2 percent of all corporate assets (Internal Revenue Service, 2003). By contrast, the top 0.002 percent of corporations with a quarter of a billion dollars or more in assets held about 90 percent of all corporate assets. In 2000, about 90 percent of all active corporations held assets of less than 1 million dollars, and this large group of approximately 4.5 million firms accounted for just over 1 percent of all corporate assets. The largest 9 percent of all corporations therefore controlled over 98 percent of all corporate assets.

Table 1.2 European Union: employment share by member state and employment size, 2003, selected nations

<i>Nation</i>	Percentage employment share of firms with:				Total percent
	0-9 employees	10-49 employees	50-249 employees	250+ employees	
Denmark	36	20	17	27	100
France	37	16	14	33	100
Germany	34	18	13	35	100
Greece	57	17	13	13	100
Italy	57	17	10	16	100
Spain	50	20	12	18	100
United Kingdom	32	15	12	41	100
<i>All EU Nations*</i>					
Employment Share	39.4	17.4	13.0	30.3	100
Percent of Firms	92.3	6.5	1.0	0.2	100

*'All EU Nations' includes, in addition to those shown, Austria, Belgium, Finland, Iceland, Ireland, Luxembourg, Norway, The Netherlands, Portugal, and a non-EU nation, Switzerland. Excludes agriculture, hunting, forestry, fishing, and some 'non-market services.'

Source: ENSR. Observatory of European SMEs (2003), Table 1.2.

Detailed information reveals that concentration varies over time within particular corporate sectors. For example, among the 7,887 commercial banks in the United States in 2002, the 184 largest banks with 3 billion or more in assets controlled about 80 percent of all assets (U.S. Department of Commerce, 2003). By contrast, credit unions are mostly state and local membership-based institutions holding fewer assets than banks. In 2002, only 9 of the 9,688 credit unions held more than 3 billion dollars in assets, representing only about 10 percent of all credit union assets. The merger and acquisition movements of the past several decades led to further consolidation in some industries, but the overall concentration of corporate assets has apparently not increased very much (Stearns and Allan, 1996).

Small organizations are significant employers

Third, measured by employment share, large firms still have a very large share of total employment. Nonetheless, small firms play an important role in labor markets. In the United States in 2000, about 36 percent of all employees worked in firms that employed fewer than 100 people. In the agricultural, forestry, and fishing sector, and in construction, substantially less than half of employees worked in firms with more than 100 workers (Small Business Administration, 2002: Table A.7). In three industries, more than 70 percent of the workforce worked in large organizations: (1) manufacturing, (2) transportation, communication, and public utilities, (3) finance, insurance, and real estate. In the EU, firms with 50 or more workers employed about 43 percent of the private sector labor force in 2003, but variation across countries was substantial, as shown in Table 1.2. In

Germany and the United Kingdom, large firms employed around half the labor force, whereas Greece and Italy had very large small-firm sectors, with firms over 50 employing just over 26 percent in both countries (ENSR, 2003: Table 1.2).

Taken individually, small organizations may appear to have a relatively minor effect on their environments. However, analyses at the population or industry level often show that small individual effects can cumulate into sizable collective effects. For example, Barnett and his colleagues studied telephone companies in Southeast Iowa, active between 1900 and 1917, and telephone companies operating in Pennsylvania between 1877 and 1933 (Barnett and Amburgey, 1990; Barnett and Carroll, 1987). They found that small firms – taken individually – consistently had the smallest effects on other firms. However, taken at the population level, small firms in both studies consistently had the strongest effects because of their greater numbers. More important, from an evolutionary perspective, large organizations have their roots in small ones. They do not burst onto the scene fully formed, but rather emerge from among cohorts of peers, many of whom do not survive the startup process and most of whom do not grow to textbook-salient size.

Plan of the book

We use an evolutionary approach to explain the genesis of organizations, population, and communities in modern industrial societies. While offering a framework for understanding, we also wish to keep images of organizational reality in the foreground. Accordingly, we draw on many case histories and offer extended examples of recent research. We emphasize that the processes of emergence are grounded in local and historical contexts, but also that certain generic regularities are apparent.

The book is organized into five sections. The first introduces the evolutionary approach and puts it in the context of other approaches. The second section contains three chapters that use an organizational level of analysis and focus on the role of individuals and groups in the creation and maintenance of organizations. In the third section of the book, we examine organizational transformation and make the transition to a population level of analysis by exploring the historical context of organizations and social change. The fourth section includes two chapters at the population level of analysis, with the first focusing on the emergence of new populations and the second on the reproduction of established populations. In the fifth section, we move to a community level of analysis, drawing upon the earlier chapters to explore how entrepreneurship and relations between populations affect the dynamics of community emergence. Each chapter concludes with a series of study questions and exercises that highlight relevant theoretical debates and suggest empirical areas requiring further research.

Plan for the chapters

In the first section of the book, Chapters 2 and 3 set the stage for what follows by describing the evolutionary approach and how it relates to other perspectives. In Chapter 2, we examine three issues. First, we define and explain the four generic processes that drive evolution and generate the critical events occurring in the life histories of organizational entities: variation, selection, retention, and struggle. Second, we

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illustrate the promise and challenges of an evolutionary approach, via a detailed historical case study of Wedgwood Pottery. Third, we review some of the central issues affecting research design in an evolutionary approach, including selection biases that may impair our ability to identify evolutionary processes, the problem of defining organizational novelty, and the various levels of analysis that may be addressed. We emphasize that the evolutionary approach is applicable across multiple levels, thus setting the stage for a review of approaches that focus on different units of analysis.

In Chapter 3, we argue that that a diversity of approaches to organizational studies is not only tolerable but also necessary, given the subject matter. Because the evolutionary approach is an overarching perspective, we believe that it is flexible enough to serve as a metatheory within which other approaches are acknowledged and appreciated. Evolutionary models do not specify the engines driving variation, selection, and retention, and thus they depend upon ideas from other approaches for their power. We review six approaches: institutional theory, the interpretive approach, organizational learning theory, population ecology, resource dependence, and transaction cost economics. We consider how each approach deals with variation, selection, and retention. Using an evolutionary lens, we also discuss a few of the key issues and debates surrounding each approach, as well as the contributions each makes to understanding organizational evolution.

In the second section of the book, Chapters 4, 5, and 6 take up the question of the conditions under which organizations emerge and coalesce as social units. Organizations display a bewildering variety of forms because they have been created in response to a wide range of problems and have emerged under widely varying environmental conditions. In Chapter 4, we explore the process by which new organizations are founded. People who initiate activities that might culminate in a viable organization are called *nascent entrepreneurs*. In applying an evolutionary perspective, we focus on two aspects of the process by which nascent entrepreneurs move toward creating a fledgling organization: their pursuit of organizational knowledge, and their mobilization of resources around an activity system. Most organizations start small, with little in the way of capital requirements, and thus social support and knowledge gained through social networks figure heavily in their ability to keep the activity going. We highlight the network context of startup activity through a research illustration of a study that has sampled nascent entrepreneurial teams across the United States and analyzed their demographic and network composition.

Chapter 5 continues the theme of emergence by asking how founders and other participants solve two related problems. First, they must discover how to maintain organizational boundaries, and second, they must learn how to reproduce their organizational knowledge. These discoveries must endure from day to day, and over generations of members. Boundary maintenance is problematic because members play ambivalent roles in organizations: as users of what organizations offer because of their control over resources, and as supporters of what organizations must do to reproduce themselves. We pursue these themes by focusing on the processes by which new organizations recruit applicants and construct reward and control systems. We draw extensively on social psychological research in this chapter to explain how the boundaries of groups and organizations become real, taken-for-granted reference points.

In Chapter 6, we examine how *organizational forms* emerge out of the routines and identities that develop around organizational tasks, driven by local exigencies as well as authoritative directives. We argue that founders spend much of their time hiring employees and centrally allocating some roles. At the same time, other roles are emerging through

the creation of idiosyncratic jobs. Under these conditions, an organization's coherence as an entity is problematic because founders' activities are constrained by the relations members establish with one another. Through their interaction, members must learn and share organizational knowledge, and use it on a daily basis. We present a perspective on organizational forms that is grounded in interaction between members and their cognitive schemata. We review an ethnographic study of software support hotlines to illustrate the usefulness of a routine-based approach to understanding organizational forms. The image of organizations as boundary-maintaining systems also raises the issue of the extent to which organizations maintain a homogenous identity. Using Martin's (2002) analysis of organizational culture, we argue that multiple strands of meaning run through most organizations, especially after they have become bounded entities.

In the third section of the book, we examine the issue of transformation within organizations and within cohorts of organizations experiencing large-scale social change. The issue of how frequently and under what conditions organizations change has provoked some of the most spirited debates in organizational studies. For example, strategic choice theorists have argued for managerial autonomy and adaptability, whereas ecological and institutional theorists have tended to stress organizational inertia and dependence. If, organizations are relatively inert after they are created, then new organizations are the primary source of variety in populations. Organizational founding processes would be responsible for the modification of populations over time. If, however, organizations change significantly and frequently over their life course, then existing organizations are the major source of diversity in populations.

Of course, we know that organizations sometimes change. The key questions are how often do they change, to what extent, and under what conditions? Moreover, even if organizations do change, they may not change fast enough to keep up with their environments. Some organizations adapt readily to every environmental challenge, whereas others succumb to the first traumatic event they face. In Chapter 7, we offer a definition of transformation as a major change occurring along three possible dimensions: changes in goals, boundaries, and activities. Major changes involve a break with routines and a shift to new kinds of competencies that challenge existing organizational knowledge. The evolutionary framework calls our attention to several dimensions of the transformation process, including the extent of member involvement in them. We also consider the conditions under which transformation disrupts organizations and thus potentially threatens organizational coherence and survival.

Some organizational transformations occur not only within populations but also across entire communities of populations, occurring on a sweeping historical and geographical scale. Others are mundane, repetitive events that are individually insignificant but that have substantial cumulative effects. Most transformations lie somewhere in between. All are time-dependent historical processes. In Chapter 8, we argue that we must embed our explanations in an historical context to study population-level transformations, and we present a framework for classifying and interpreting historical transformation processes. We borrow from population demographers a conception of history as comprising age, period, and cohort effects. Using a research illustration about elite recruitment in the Chinese Communist Party over nearly half a century, we underscore how history can be a key feature of an evolutionary explanation.

In the fourth section of the book, we focus on a population level of analysis, examining the dynamics of new population emergence and the persistence of established populations. In Chapter 9, we examine the social processes surrounding the emergence

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of new populations, from pioneering ventures through early stages of growth, until a new form proliferates and the population becomes established. Organizational forms reflect the knowledge and resources available to nascent entrepreneurs during a specific historical period. Resource availability is historically contingent, based upon conditions during a particular historical epoch, and thus certain kinds of organizations cannot be founded until the relevant competencies and routines are available or until entrepreneurs develop them. Competencies and routines used in organizing are culturally embedded and historically specific, and thus populations founded in different eras embody different organizational forms (Stinchcombe, 1965). In constructing new populations, nascent entrepreneurs either develop new competencies and routines, or else combine old ones in novel and innovative ways.

Chapter 10 is based on the observation that populations of organizations in modern societies are constantly undergoing processes of expansion, contraction, and change. If all newly founded organizations persisted forever, then the study of organizational evolution would be confined to issues of founding, adaptation, and inertia. However, we know that organizations disband at a fairly high rate, and a sizable literature has developed on organizational mortality (Baum, 1996; Carroll and Hannan, 2000; Ruef, 2002b). Organizations can cease to exist as separate entities in two ways: by completely dissolving – the process by which the vast majority of organizations disband – or by becoming part of a different entity through merger or acquisition. Less than 1 percent of the incorporated firm population in any given year disappears because of mergers (Small Business Administration, 1998), but about 10 percent of the businesses in the United States cease to exist as separate entities each year (Small Business Administration, 2004). Similar rates have been found in other Western capitalist economies, such as the United Kingdom (Ganguly, 1982). We examine the impact of external events on the viability of different forms of organizations, using a research illustration that emphasizes competition between chain stores and independent retailers.

In the final section of the book, we move to the community level of analysis. An organizational community is a set of populations linked by ties of commensalism and symbiosis. The evolution of communities depends on the simultaneous processes of variation, selection, retention, and struggle at the population level, aggregated across the various populations constituting an organizational community. The dynamics of community legitimation also affect the course of organizational evolution. Thus, the same evolutionary model used to explain organizational foundings and the emergence of new populations can also be applied to community development.

Mutual interdependence (between different units) and competition and cooperation (between similar units) sort populations into niches. Dominant populations drive others into subordinate positions and ancillary roles. In Chapter 11, we build on Hawley's (1950) conception of the community level of analysis, focusing on relations between populations. We offer a typology of eight forms of population interdependence, ranging from full competition to full mutualism or symbiosis. Dominance and power relations also play a role in community structure, especially when entrepreneurs struggle to carve out new niches and gain legitimacy for their organizations and populations. We examine two aspects of this process: (1) entrepreneurs' roles in building new populations from discontinuities in technology, norms and values, and laws and regulations, and (2) collective action by interest groups and associations that builds community level legitimacy, especially directed toward the state.

Study Questions

1. Employing the definition of formal organizations as goal-directed, boundary-maintaining activity systems, identify some problematic cases in the 'gray area' between organizations and other social groups. Examples might include youth gangs, social movements, and professional conferences, among others. Develop a taxonomy that accounts for deviations from the definition of organizations.
2. Some methodological individualists argue that the study of organizations is reducible to the study of individual participants and stakeholders. How would you defend the idea of an organizational science, in light of these arguments? Why is it important to study organizations apart from individual actors?
3. In our review of descriptive organizational statistics, we noted that past research has often been developed based on biased views of the organizational landscape (e.g. the misconception that large firms are numerically prevalent). What are some other 'myths' about organizations that you think are commonly held among academics or the general public? What research designs could you employ in an effort to falsify those misconceptions and why?

Exercises

1. Find and evaluate a source of information on businesses or non-profits in another nation. You may use the Internet, but should also consult with your reference librarian for help in locating reliable and up-to-date figures.
2. Map the organizational population of your community. Prepare a distribution of firms by employment size.
3. Interview a local politician or public administrator about changes in the local business population.
4. Write your own 'organizational autobiography' in terms of the organizations that have shaped your life.