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1 INTRODUCTION

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Organizations, Policy, and the Natural Environment recasts standard approaches to corporate environmentalism and environmental policy studies in light of recent developments in organization theory and institutional analysis. We draw on the empirical case of the natural environment to redirect theoretical emphases in institutional theory and highlight organizational field-level analysis and the linkage between social meaning and social structures within policy worlds. The book introduces a new category of research questions and approaches them from the intersection of environmental policy studies, sociology of the environment, and management and organization theory. These questions are both theoretical and substantive, making use of a current, contested policy domain to enrich and extend theory in organizational sociology and strategy.

What is at stake here? Issues of environmental sustainability, management, and corporate environmentalism are high on the global policy agenda today. They are of concern to specialty researchers, policy makers, business executives, and others (Becker and Jahn, 1999; Rothenberg, 2002). Consider the developments that have brought these issues into policy dialogue: validation of early claims by then-unknown authors and scientists sounding alarms about the fate of the planet (such as Carson, 1962); the rise of recycling and struggles over political economy and alternative technologies (Weinberg, Pellow, and Schnaiberg, 2000; Karnoe and Garud, 2002; Lounsbury, Ventresca, and Hirsch, forthcoming); complex struggles over public infrastructures and the environment (Espeland, 1998); local social movements' expanding concern about "global" environmental issues (Dunlap, 1991; Meyer and others, 1997); and the growing number of multinational corporations

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that are making environmental issues central to corporate strategy (Hoffman, 1997, 2000; Hart, 1997).

Environmental issues and the policy initiatives related to them have altered basic political, economic, and social institutions that organize the operation of industrial and market economies today. The empirical studies in this book analyze how this happens—how institutions define environmental problems, devise plausible solutions, and impede or foster implementation. Moving beyond arguments grounded in economic, legal, or technical studies, the arguments developed in this book treat this complex evolution of ideas, resources, social structures, and practices as an *organizational* process that takes shape in broader, increasingly institutionally structured policy fields.

The case of corporate environmentalism provides an example of how the very conception of policy issues evolves over time through interested actions (Hoffman, 1997; Prakash, 2000). In the 1970s, corporations viewed environmentalism as an external threat to established business practices and profits. But, through a decades-long process that included changes in influential actors, the redefinition of the role of government, the rise of related social movements, court battles and legislative activity, and much public attention, environmentalism has emerged as a routine strategic consideration of major corporations. Over the course of roughly three decades, norms for corporate environmental practice have radically changed. National governments enacted myriad environmental regulations. The United Nations established global treaties on environmental issues such as endangered species protection, toxic chemical controls, hazardous waste shipments, pesticide use, tropical timber management, and global climate change. Trade agreements made by the World Trade Organization, the North American Free Trade Agreement, and the European Union address a wide range of environmental issues. The insurance, banking, and investor communities include environmental concerns in their underwriting, loan granting, and investment procedures. And new forms of industrywide programs (such as the Chemical Manufacturers Association Responsible Care Program), environmental management standards (such as ISO14001 and EMAS), performance reporting procedures (such as environmental annual reports), and staffing objectives (such as environmental vice presidents and the inclusion of environmentalists on boards of directors) are increasingly commonplace.

This complex array of organizational initiatives is marked by and proceeds in part because of conflicting logics and meaning systems, heterogeneous governance arrangements, and a plurality of types of actors. For example, issues of environmental protection are contested among a wide range of interested parties, both

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public and private, and including both collective and individual persons (MacNaughten and Urry, 1998). This makes corporate environmental management issues a strategic research area for organizational scholars trying to understand change processes that span "levels of analysis" and the complex social systems in which they occur.

In this chapter, we introduce the organizational and field-level approach developed in this book. We join recent work on field-level analysis with analytic problems of environmental policy and management to illustrate the usefulness of an organizational approach. We discuss how taking an organization and field-level approach can illuminate the emergence and significance of "policy theories" (Weiss, 1998) that define issues in particular ways, elucidating the roles of ambiguity, expertise, and contested natures in policy problems, their proposed solutions, and possible interventions. We contrast our approach with other disciplinary approaches commonly used to study environmental issues, and track the history and tensions in two specific legacy research domains, sociology of the environment and environmental management, to examine the benefits of specialty research subfields. We suggest six new research directions exemplified by the work in this book. We close by introducing the key arguments and findings in the chapters, and discuss their contributions to organizational, policy, and environmental research. Overall, we use the empirical cases in the chapters to inform redirections in institutional theories of organization and to highlight opportunities for policy studies of this tradition.

THE INTELLECTUAL FOUNDATION OF THE BOOK

This book presents a framework and empirical studies grounded in institutional theories of organization (Powell and DiMaggio, 1991; Scott, 1991, 1995) to examine the interplay of organizations, policy, and the natural environment. Our analytic stance starts with four premises. (1) Policy issues and the broader fields of expertise and activity that form around them are organizational productions (Beamish, 2001; Egri and Pinfield, 1994; Hoffman and Ventresca, 1999; Meyer and Rowan, 1977). (2) The social worlds that help to stabilize and make policy issues recognizable are complex systems of organized activity shaped not only by expertise, technology, and scientific activity but also by social processes of identity construction, negotiation, and control (Becker, 1982; Clarke, 1995; Espeland, 1998; Haas, 1990). (3) Changes in the scale and scope of environmental issues and the policy communities involved, especially as they involve shifts from local to global activity, merit direct analytic attention and pose challenges to standard ap-

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proaches in policy studies (Frank, Hironaka, and Schofer, 2000; Liberatore, 1991). (4) We offer the book in part to suggest that contested nature of environmental issues, coupled with changes in the scale and scope of governance, invite institutional and organizational analysis to complement other research approaches (Hoffman, 2001; Jennings and Zandbergen, 1995; Starik and Marcus, 2000).

Recent initiatives in corporate alliances and strategies illustrate these premises. They provide evidence of activity occurring outside the boundary of any one organization and beyond conventional regulatory activity. Much of this activity is occurring at a global level, that is, among organizational actors working across national boundaries, authorized to act by transnational authority, and actively creating policy venues external to any one country's laws and regulations. Consider the following examples of field-level debate among heterogeneous organizational actors:

- In 2000, seven multinational companies (DuPont, Shell, Alcan Aluminum, BP, SuncorEnergy, Pechiney, and Ontario Power Generation) joined in a partnership with the environmental group Environmental Defense to voluntarily reduce the emissions of greenhouse gases even though the Kyoto Treaty that mandates the reductions was not ratified.
- Also in 2000, fifty multinational corporations joined forces with activist groups, labor unions, and the United Nations by signing a global compact on environmental protection and human rights. Signatories included executives from companies such as DaimlerChrysler, Nike, Royal Dutch Shell, Bayer, and Unilever as well as activist groups such as the World Wildlife Fund and Amnesty International.
- In 1992, the Geneva-based International Standards Organization began developing ISO14001, a voluntary set of standards to promote the adoption of corporate environmental responsibility into corporate management systems worldwide. Representatives from companies such as IBM, Eastman Kodak, and British Telecom established specifications and guidelines. Now ISO certification is necessary to do business in certain multinational markets (such as the European Union). By late 1998, more than 5,500 organizations had been certified to ISO 14001.
- In 1990, the Chemical Manufacturers' Association (CMA) recognized that all its member companies share a common reputation on the environment and instituted a program called Responsible Care that bound its 170 members to a set of ten principles designed to improve environmental performance. After Responsible Care was unveiled, similar programs

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emerged in other industries such as petroleum, printing, textiles, paper, lead, and automobiles. Like Responsible Care, they are built on the belief that the environmental reputation of a single company is dependent on the reputation of the entire industry.

These examples provide evidence of coordination and cooperation at the global field level. Some represent novel coalitions, forging new kinds of industry relationships in the service of governing environmental issues. Moreover, they provide new organizational venues for the collective definition of key problems and solutions in a way that redefines the community of relevant policy actors (Haas, 1990; Haas, Keohane, and Levy, 1993). These developments also highlight why organization theory and field-level perspectives are especially timely and should usefully extend studies of organizational strategy to consider the processes by which collective notions of rationality form (DiMaggio and Powell, 1983; Galvin, 2002; Hoffman, 1997; Jennings, Martens, and Zandbergen, Chapter 3; Rosenkopf, Metiu, and George, 2001; Scott, 1983). This style of analysis shows how new forms of legal, political, social, and economic institutions mediate between organizational and societal expectations regarding what is legitimate practice with respect to the environment. In this book, we examine such organizational and institutional processes as they affect policy formation, implementation, and consequences.

ARGUMENTS: FIELD-LEVEL INSTITUTIONS AND COLLECTIVE RATIONALITY

Research in organizational and management sociology emphasizes attention to field-level systems and their institutional and cultural features, the "vertical" aspects of social organization, an approach that distinguishes a field-level analysis from an industry focus or a corporate demography approach (Fligstein, 2001). An organizational field is "a community of organizations that partake of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field" (Scott, 1995: 56). A field is an empirical trace, and may include constituents such as government actors, critical exchange partners, intermediaries in the value chain, professional and trade associations, policy entrepreneurs, regulatory bodies, and organized public opinion evident in consumer or other organized interests—all constituencies that interact and contend in the definition of the broader field logics, governance institutions, and activity (Fligstein, 1996; Scott, 1991; McDonough, Ventresca, and Outcalt, 2000). But more than just a collection of influential organizations, a field com-

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prises common channels of dialogue and discussion focused on central policy issues (Hoffman, 1999).

Scott (2001) identifies three basic models (or "pillars") of institutions that undergird conceptions of a field: cognitive, normative, and regulative. Each is grounded in different (disciplinary) assumptions about what institutions are and how they affect organizational behavior and activity. They range from conceptions of explicit, direct provision of incentives for action to tacit processes embodied in taken-for-granted assumptions (Zucker, 1983). These three analytic conceptions offer distinct vantage points for exploring institutional processes at work in a particular empirical case. Each has practical value for understanding the institutional framing of policy issues and for informing organizational analysis (Hoffman and Ventresca, 1999). Each provides metatheoretical descriptions of collective reality for the organization—explanations of what is and what is not, what can be acted upon and what cannot. Finally, each opens further analytic questions about the cross-effects among these three source mechanisms of institutional effects. As institutional arrangements emerge, contend, become stable, and change, the proximate field of structured activity comprises both sources of empowerment by providing alternative conceptions of action and sources of control by limiting options for consideration (Jepperson, 1991; Fligstein, 1992).

By highlighting field-level approaches, the chapters chart synergies between organizational and environmental studies, a redirection of the core "pillars" approach to institutional analysis, and an alternative to the aspiration of a distinct, separate subfield of environmental scholarship. We view environmentalism and the accompanying policy debates as a domain of conflict among ideologies. A shift in these ideologies is manifest in the shifts in roles, meaning systems, and dominant logics. Thus at the core, this book treats these shifts as social contests among competing field-level constituencies. Broad issues of environmental protection, generally of environmental quality and social interests, are neither socially nor politically separable from constituting the policy theories that shape them, nor are they made tractable by technical analysis alone. "The question must always be asked, for whom and from whom is [the environment] being protected?" (Schnaiberg, 1980: 5).

This book introduces a synthesis of ideas that cross the theoretical domain of institutional and cultural analyses with the empirical domain of environmental issues as they relate to organization studies, strategy, and management. This makes explicit opportunities to specify institutional and social processes that configure organizational structures and policy, taking advantage of environmental management as a critical empirical site. The field-level focus directs attention to three aspects of field situation: to shifts in ideologies and cultural logics that specify con-

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ditions of feasibility and what is imaginable; to the governance arrangements that establish regulatory possibilities and implementation; and to the changing role and authority of actors who struggle, negotiate, and redefine the terms of policy issues in these fields (Scott, 1994; 2001; Hoffman and Ventresca, 1999).

This book focuses deliberately on the field level in order to emphasize the analytic value-added, in contrast to other directions in institutional theories of organization that underspecify field elements and mechanisms. Field-level analysis provides us with tools and concepts with which to examine institutional mechanisms that influence organizational structures, strategies, and policies. In their classic paper on mechanisms of organizational change, DiMaggio and Powell (1983) argued that organizational analysts could garner new insights by paying attention to the "collective rationality" of organizational fields. This argument summarized and introduced a longer tradition of field-level analysis among organization theorists (Mohr, 2002). DiMaggio and Powell argued that from the early years of the twentieth century, new forms of political authority (especially nation-states and government in general) and new sources of expertise (especially modern professions and other knowledge-intensive occupations) played a basic role in driving changes in organizational structures and strategies. In particular, they argued that the activities of states and professions supplanted efficiency or market-based drivers of organizational change, and that variation in the social structure of organizational fields provides a better-specified account of the sources of organization-level change. This was not a normative position, but rather an effort to theorize in behavioral terms the changing drivers of organizational structure and policy.

But much recent empirical analysis has underspecified or simply neglected the import of institutional processes by which collective rationality forms within organizational fields, focusing instead on outcomes. This is unfortunate, both for theory development and the misrecognized empirical insights possible from this vantage point. DiMaggio, reflecting on "what theory is not" (1995) suggested that core institutional claims in the 1983 paper have suffered asymmetric attention:

> Somewhat to my surprise . . . papers . . . cited our paper as support for the proposition that all organizations become like all others, regardless of field. Somehow the network argument that we authors regarded as so central had been deleted in the paper's reception. Within a few more years, the paper had turned into a kind of ritual citation, affirming the view that, well, organizations are kind of wacky, and (despite the presence of "collective rationality" in the paper's subtitle) people are never rational (DiMaggio, 1995: 395).

We refocus on the "collective rationality" of organizational fields—the struc-

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tured and collectively held systems of meaning that inform field-level sources, mechanisms, and effects for organizations and other social actors. We highlight theoretical and empirical processes of change and conflict at the level of fields, organizations, and practices (DiMaggio, 1995; Greenwood and Hinings, 1996). Further, this book focuses on the dynamics that shift social structures, create new realities for organizations, and redefine the basic resource context. Table 1.1 summarizes some of the key redirections that expand the elements of environmental and field-level analysis offered in this volume.

This focus begins with a move away from assessments of individual rationality or action to investigate how collective rationality comes to provide fundamental sources and motivations for those actions. Collective notions of what is appropriate corporate behavior emerge and evolve through field-level debate. The focus on debate, dialogue, and conflict among field-level actors is an important direction for this research stream and is refocusing analysts on the dynamics of field-level collective rationality—its sources, mechanisms by which it changes, and its effects on organizational actors and policy (Proffitt, 2001). This line of inquiry is critical for understanding how conceptions of environmental issues are created and how those conceptions result in individual and organizational action which may conflict with environmental interests (Bazerman and Hoffman, 1999; Clark and Jennings, 1997). In particular, institutional and organizational analysis seeks to understand the cultural and social sources of policy models and conventions (Dobbin, 1994; Guillén, 1994), and to explain how ideas and beliefs about organizational strategies and practice become standard and spread in highly structured fields of activity (Edelman, 1990; Guthrie and Roth, 1999; Washington and Ventresca, 2001). Its focus is on the dynamics by which the natural environment is defined and enacted through relevant social and institutional structures of information and attention (Hoffman and Ocasio, 2001). These are typically collective orders, and the evolution in these policy regimes and governance arrangements is an important direction for this area of research (Haas, 1990; Meyer and others, 1997).

The chapters in this book also move away from a focus on outcomes of stability, inertia, and convergence as central and defining of institutional analysis, to instead consider the linkages between field-level processes and heterogeneity of organizational structures, strategy and activity, and outcomes. Much empirical work in the institutional analysis tradition has treated increased homogeneity among organization structures and practices as evidence of a "master hypothesis" of isomorphism, that is, change processes that lead toward sameness in structures. Similarly, heterogeneity of form and practice is often treated as evidence that counters

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Table 1.1
Expanding the Elements of Environmental and Field-Level Analysis

Element	*Current View*	*Expanded View*
Level of analysis	Organization-level activity	Field-level activity
Market activity	Rationally directed	Politically inflected
Fields	Centered on common technology and markets	Centered around issues of debate
	Domains of stability	Domains of contest, conflict, and change
Institutions	Things	Processes and mechanisms
	Constraints	Opportunities *and* constraints
	Cognitive	Cognitive *and* political
Central organizing concept	Isomorphism	Collective rationality
Institutions and organizations	Separate levels of analysis	Linked levels of analysis
Field/organization interface	Unidirectional from field to organization	Dual-directional between field and organization
	Uniform across organizational contexts	Affected by organizational filtering and enactment processes
Organizational activity	Defined by field-level activity	Negotiated with field-level constituents
	Strategically inert	Strategically active
	Scripted	Entrepreneurial
	Homogeneous	Heterogeneous
Institutional change	Undeveloped	Open to entrepreneurial influence

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the claims of institutional theories of organization (Kraatz and Zajac, 1996). But this master hypothesis view and focus on particular outcomes can deflect attention from the specification of collective rationality, contending logics, and mechanisms that result in structured heterogeneity in a field (DiMaggio and Powell, 1983; Washington and Ventresca, 2001).

To redress this situation, the chapters that follow move away from simple *outcomes* of institutional processes, to focus on origins, structured heterogeneity, and institutional *mechanisms,* all embedded in field-level contexts. They provide evidence from varied cases to examine these issues. The effort here is to reconnect analysis to the field-level processes by which collective rationality is arbitrated, channeled, and formed (Espeland, 1998). They focus on institutional *processes* or mechanisms, rather than on institutions as *things.* They illuminate field-level debates that highlight how institutional arrangements, although sometimes stable, are not inert. They extend continuities between the rich legacy of institutional sociology that precedes this volume, contemporary research directions, and the insights from environmental issues as an empirical discipline. They move beyond notions of institutions as barriers, as always taken for granted and as leading toward isomorphism, to reincorporate field-level dynamics, collective rationality within these fields, and the behavior of individual organizations as integral parts of these processes. They show how field-level processes and mechanisms comprise opportunities for change as well as sources of stability.

Efforts to bridge field- and organization-level analysis have taken several forms. Some recent scholarly strategies focus on restoring power and agency to institutional accounts by inserting a rational choice conception of agency or an instrumental and material view of power into institutional arguments. Not surprisingly, this returns a version of resource dependence views to institutional analysis, where "legitimacy" is the resource being struggled over. These arguments are often weakened by their underspecification of field-level processes. Others have begun to argue that individual firms can respond strategically to institutional pressures (Oliver, 1991) or may strategically influence the process of institutional change (Lawrence, 1999). In these cases, the organization and the field are treated as separate and distinct. The firm responds to institutional pressures rather than interacting with them. In fact, we speculate that the conception of "pressures" itself may be misdirected (Washington and Ventresca, 2001). DiMaggio and Powell based the study of collective rationality in organizational fields in a social network approach that emphasizes power and the distribution of material resources combined with a social cognition approach concerned with broad public categories of meaning (DiMaggio, 1995). As a result, we find that other kinds of mechanisms adapted

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from research on conflict—negotiation and social cognition, for example—may be more useful in specifying these processes than the somewhat general pressures formulation consistent with early conceptions of open systems and organizational environments.

One persisting criticism of institutional theories of organization focuses on how the arguments address change processes (DiMaggio, 1988; Brint and Karabel, 1991; Hirsch and Lounsbury, 1997; Perrow, 1986), but chapters in this book address this by linking institutional change processes with the behavior of specifically powerful organizations. Some organizations are more effective at producing desired social outcomes than others. These organizations can have disproportionate size or legitimacy that allow them to dictate the actions of others and shape social fields (Fligstein, 1991), or have distinctive social capital (Coleman, 1988) such that they can influence the formation and evolution of field-level dynamics. The chapters in this volume consider the institutional context of resources and the particular skill set and strategy that can be employed by institutional entrepreneurs (Fligstein, 1997).

Locating organizations in fields of activity animated by competing institutional arrangements helps to link micro and macro levels of analysis (Hoffman, 2001). Collective rationality is an animated process that takes form across several levels. Few institutional analyses fully connect the influence of institutional fields to culture and practice on the organizational level. Most research analyzes dynamics in terms of field-level change, not individual response. We underscore the linkages between organizational culture and societal institutions, urging a conversation between these two, often separate, literatures. This follows early institutionalist insights that "we have come to label the present perspective, for better or worse, as an institutionalist model, although we hope that 'culture' eventually can be reclaimed by macro-sociology" (Thomas and others, 1987: 7). Some chapters in this book suggest that to understand firm heterogeneity within an institutional context, organization-level analysis complements and extends field-level analysis; the value of such dual specification is clear—directly redressing the oversocialized view (Granovetter, 1985) that would depict recipients of field-level influence as a homogenous collection of organizational actors, each behaving according to a social script designed by the social environment.

But more important, the interaction between firm and field is not unidirectional nor is it apart from interpretation and enactment processes. The work in this book incorporates concerns for sense making and issue interpretation by field-level constituents (Dutton and Dukerich, 1991; Hoffman and Ocasio, 2001). Field influences are not uniformly understood by participants within the field; organi-

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zation-level dynamics can filter and alter institutional demands. Further, the research here describes how organizations might transmit their interests back to the field. Organization reputations, identities, and images are pliable concepts, shaped by the perception of players within the field and shaping the field (Douglas, 1986; March and Olsen, 1989). With the linkage of organizational and cultural dynamics created, opportunities for strategic action within a field become vivid, leading some chapter authors to develop the notion of the institutional or cultural entrepreneur (DiMaggio, 1988; Fligstein, 1997; Zucker, 1988).

ENVIRONMENTAL ISSUES AND ORGANIZATIONAL STUDIES: DISTINCTIVE FIELD-LEVEL AND INSTITUTIONAL ELEMENTS

We are convinced that the intersection of business and the natural environment is an especially timely and useful domain for organizational analysis of field-level dynamics and policy. Overall, environmental issues are tough policy issues that are shaped by contending ideologies, defined by much ambiguity about causal linkages and consequences, and driven by increasingly well-organized constituencies and stakeholders. The definition of the issue, the provision of its solutions, and the modes of policy intervention applied vary and are contested (Weiss, 1998). Moreover, the scientific and technical base of evidence regarding these processes is often thin or debated. Even where clear evidence is available, political processes reshape available repertoires of intervention (Douglas and Wildavsky, 1982). In these ways, environmental issues are similar to other social, technical, and economic policy issues.

The environmental domain shares features with social policy sectors such as education and health care and with other social issues confronting corporations, such as the social responsibility of business, labor relations, and the presumed tradeoff of efficiency and social effectiveness (Wade-Benzoni and Bazerman, 1999). But environmental issues are also marked by technical and economic components that make them more akin to consumer demand, material processing, or competitive strategy. This combination of social and technical elements makes environmental issues distinctive. And it makes the environmental domain both especially difficult and especially useful as an empirical site of organizational research. In this section we explore the distinctiveness of environmental policy and management issues through (a) the kind and variety of field-level constituencies engaged in debate and (b) the institutional elements that emerge from that debate.

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The Field-Level Constituency Invoked by Environmental Issues

We begin by discussing the range of actors that can be thought of as constituencies for relevant policies and practices. Social movements and government actors have been prominent constituencies in the development of environmentalism and environmental policy issues. The field of actors relevant for environmental issues has shifted in recent years, however, to include more prominent business interests and also more organized interests at the transnational level (Brulle, 2000; Hoffman, 1997; 2000). The primary early linkage in environmental issues between social movement activism and regulatory or judicial activism is common with other issues such as gender equity or civil rights—constituency groups lobby for social change and make claims in standard and organized venues across society. These movements connect the values of their cause with their personal identity, creating a value resonance that is a potent force for social change. The activist organizations have little material stake in organizational output yet influence that output through ideological activism, driving change in the norms, values, and beliefs of organizational systems.

However, the composition of field-level constituencies around the environmental issue is less well-defined than that of some other policy issues with strong social movement stakeholders. Whereas other public issues have a more clearly specified constituency, membership in the environmental movement cannot be specified by demographics, class position, or other familiar sources of identity (Beck, 1992; Egri and Pinfield, 1994). Environmentalism has no single demographic or well-structured political constituency among proponents or opponents of particular environmental policy initiatives. In fact, opposition to environmentalism on the grounds of threatened material interests or aversion to state intervention would be easier to explain than environmental advocacy (Buttel, 1992). A high-quality environment tends to be a public good, which when achieved cannot be denied, even to those who resist environmental reforms. So firms concerned with corporate environmental responses are left to decide who is a legitimate representative for environmental concerns, beyond those addressed by basic regulatory compliance.

Field-level environmental constituencies are often organized environmental nonprofit groups. But the contested nature of many environmental policy issues and solutions also means that they attract a wide range of field-level supporters, including employee groups, labor unions, community groups, consumers, environmental activists, investors, insurers, the government, industry competitors, and

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even internal managers (Hoffman, 2000; Morrison, 1991). In addition, environmental issues also make visible two distinctive field-level actors.

The first is decidedly nonsocial, for there is the environment itself to contend with. The prominence and effect of environmental change acts as a unique form of pressure, placing demands on social, political, economic, and technical institutions that are distinct from other demands the corporation faces. Conditions such as species extinction, acid rain, the ozone hole, fisheries collapse, and others focus attention without warning, imposing demands for action and change. Although open to social interpretation and enactment (Hoffman and Ocasio, 2001), environmental events nonetheless provoke organizational and institutional resources and attention.

The second distinct field-level participant is the social constituent who is not yet social. Environmental issues (such as ozone depletion, species extinction, and global warming) raise basic issues of intergenerational goods, boundaries, and resource claims (Wade-Benzoni, 1996). The vast geographic scales and time horizons involved to preserve the long-term viability of the ecosystem on the behalf of future generations are difficult to represent adequately in policy discussions. As future generations cannot express their interests in social debates, their needs are open to social interpretation and enactment by cultural and institutional entrepreneurs, much like the interpretation of environmental events. The inclusion of these two unconventional actors expands the range of field-level participation and creates greater challenges for both organizational actors and researchers.

The Institutional Elements of Environmental Issues

The emergent and evolving interests within field-level debates over the meaning of environmentalism result in the continuing redefinition in its form and focus (Hoffman, 1997; 1999). The recurring entry of new field constituents leads to the kind of sustained support that environmental issues have received over the past forty years. For example, when conservation groups and a wilderness ideology prevailed in the early part of the century, environmental policy issues were cast primarily in terms of managing natural resources for social benefit. As modern environmental activists entered the policy space in the 1960s, the ideologies shifted along with the social organization of the field, and the priority became the protection of natural ecosystems. With the entry of employee and community groups in the 1970s and 1980s, the issues focused on workplace safety and community "right-to-know" laws. In the mid-1980s, insurers prompted an integration with risk management. In the early 1990s, investor groups brought a challenge to the core firm strategies and objectives; and the growing influence of customers in

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the late 1990s turned attention to a redefinition of product development. (These latter developments reflect the growing attention to sustainability.)

The introduction of each of these new field-level constituents changes the kinds of challenges and responses made on organizational structures and internal conceptions of the organization's purpose. Issues of environmental policy and environmental management are mediated by the culture and norms of this diverse set of field-level constituents. More important, given the ideological and technological nature of the environmental issue coupled with the diversity of field-level governance arrangements and systems of meaning and actors, the meaning and value of the environment is contested through what may be termed "institutional war" (White, 1992).

The systemic and technical features of environmental issues directly challenge core strategy and production processes—how organizations obtain and handle raw materials, produce goods and services, dispose of production byproducts, and handle produced goods once consumed. Over the past three decades, the technological demands of corporate environmental responsibility have shifted from removing visible contaminants from effluent streams to removing concentrations in the parts per billion and parts per trillion range. Beyond process emissions, environmental issues also mandate changes in the content of product development. Legal environments have evolved to mandate the public disclosure of emission levels and product contents as well as the potential health effects of these chemicals, creating daunting technological challenges for the firm (Hoffman and Ehrenfeld, 1998).

The effects of these demands are not unitary. Importantly, they span many industry and policy fields. Some industries, such as oil and chemicals, face greater challenges in measuring and controlling environmental impacts. Within industries, different companies face different challenges in developing new products, processes, or raw materials in the face of environmental considerations. The technical challenges of environmentalism add a new dimension to the strategic landscape, one that may decide which firms succeed and which ones fail. Field-level responses to environmental issues can cause the elimination of entire product markets, as occurred with CFCs and DDT. They can also cause the formation of new markets, as they did for Freon substitutes in the wake of the 1987 worldwide ban on CFC production.

Often, firms are required to collect data, initiate change, and develop an understanding of their processes and products in ways outside the scope of traditional conceptions of corporate or business strategy. Institutional and field-level processes can then transform the boundaries and structures of the organization,

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change the scope of business decisions, and alter the relevant constituents involved in what were once considered internal decisions. Engineering calculations may now consider analyses of the social, political, economic, and cultural contexts. Concepts such as waste minimization, pollution prevention, and product stewardship find their way into all aspects of operations, from process design to product development.

Beyond conceptions of technology, environmentalism also challenges economic conceptions of the firm (Christensen, Craig, and Hart, 2001). Unlike social issues that deal with equity and the fair distribution of opportunity and wealth, environmental issues increasingly affect basic business economics, effectively redefining the conceptions of production in industry (Hoffman and Ehrenfeld, 1998). Field-level demands from the changing constituencies of environmental issues have redefined fundamental economic models of consumption and production, resulting in a net change in efficiency. For example, a recent debate has emerged over the economic impact of climate change controls. Some estimates predict a drain on U.S. Gross National Product (GNP) of as much as 3.5 percent if aggressive emission reduction targets are set. Others estimate that modest controls on greenhouse gas emissions would not damage the economy, as the world has significant opportunities to control emissions by making its energy systems and automobiles more efficient. This more efficient use of energy could increase GNP by 1 or 2 percent (Hoffman, 1998).

In essence, field-level processes for environmental protection are altering the institutions that define the core objectives of the firm and the basic conceptions of production. Shareholder equity may remain the single most important criterion for corporate survival. Yet environmental concerns may change the understanding of what is equitable for the shareholder. The "rules of the game" (Friedman, 1970: 126) have changed such that managers act in the best interests of their investors by considering environmental protection in their decisions. Today, executives from corporations such as Ford, BP Amoco, DuPont, Bristol-Myers Squibb, Johnson & Johnson, and Monsanto actively espouse the benefits of proactive environmental management while instituting programs for community relations, product stewardship, pollution prevention, and environmental leadership, all in the name of increasing corporate competitiveness and shareholder equity. These institutional changes represent an evolution of organizational purpose and boundaries that make environmental issues distinct as an empirical topic for organizational inquiry.

How does this matter for research? We suggest that environmental issues have much in common with other contested policy domains that make them difficult to

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study and that reinforce persisting policy struggles and debates about means, ends, and appropriate interventions. We also argue that distinctive field-level constituencies and resulting institutional elements make environmental issues different from many other policy domains. Thus researchers on organizations, policy, and the natural environment encounter both advantages and challenges.

OTHER DISCIPLINARY APPROACHES TO ORGANIZATIONS AND THE NATURAL ENVIRONMENT

The study of the natural environment and society lies at a distinct juncture of the physical and the social sciences, both of which seek to understand the behavior of natural ecosystems either as separate entities or in relation to social systems. The only way to understand these systems as separate entities is through chemistry, toxicology, biology, physics, entomology, and other hard sciences. In fact, the study of the environment has been on the agenda of the modern physical sciences so long that boundary-spanning research specialties such as environmental engineering and ecology are now recognized areas of research and professional standing.

Industrial ecology provides another boundary-spanning discipline that offers an alternative to a fragmented view of environmental problems and solutions, instead focusing on the system as a whole. Using natural ecosystems as its model (Friedman, 2000), industrial ecology highlights transformational change in local, regional, and global material and energy flows, the components of which are products, processes, industrial sectors, and economies. It promotes efficient resource use by reducing environmental burdens throughout the total material cycle. This cycle consists of a continuous feedback loop, with materials and energy flowing between natural and industrial systems in three stages: extraction of natural materials that are converted into raw materials and mechanical energy; working them into useable and saleable products; and distributing them to be consumed, used, and disposed of by consumers. Developed largely by engineers, the central unit of analysis in industrial ecology is that of industrial organizations within broad-scale systems of facilities, regions, industries, and economies. The discipline seeks to reduce the environmental burden of that system through broad-scale changes (Environmental Protection Agency, 2000). The systemic unit of analysis is the technical "ecology" of the industrial enterprise, but industrial ecology is silent with regard to "social ecology."

Attention to the natural environment in the social sciences has spanned new research traditions and professional infrastructure but fewer established cross-discipliary research fields. Specialty subfields do focus on environmentalism and

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environmental policy concerns in economics (Baumol and Blinder, 1985; Cropper and Oates, 1992; Tietenberg, 1992; Hahn and Stavins, 1991), philosophy and ethics (Eliot and Gore, 1983; Hargrove, 1989; Holmes, 1988); law (Hoban and Brooks, 1996; Revesz, 1997), and business history (Cronon, 1991; Hays, 1998; McGurty, 1997; Rosen, 1995, 1997; Rosen and Sellers, 1999). Each investigates the linkages between social and environmental systems in its own characteristic idiom of research questions, designs and evidence, and policy implications. Each also has a vocabulary for connecting disciplinary standards, research, and policy and practice issues. In each, leading-edge scholars try to take advantage of the distinct features of environmentalism as a theoretical and empirical pivot for further research. Next we consider in more detail two research streams proximate to the approach we develop—environmental sociology and environmental management.

Perspectives from Environmental Sociology

Organizational and sociological study of the interaction between the natural environment and social organization and behavior dates at least from the early 1970s, coinciding with the emergence of environmental activism and social movements in the United States, Europe, and elsewhere (Laclau and Mouffe, 1985). This is evident in the activity of professional associations, intellectual organizing, and specialty journals.[1] By the late 1980s, reviews of the field identified five areas of scholarship in environmental sociological (Buttel, 1987): (1) the new ecological paradigm; (2) environmental attitudes, values, and behaviors; (3) the environmental movement; (4) technological risk and risk assessment; and (5) the political economy of the environment and environmental politics. By the mid-1990s, two core issues were at the center of the sociological agenda (Hannigan, 1995): the causes of environmental destruction and the rise of environmental consciousness and movements. The field is now addressing these key themes from a social constructionist approach that focuses on the "social, political and cultural processes" by which environmental issues, problems, and solutions are given attention and defined (Hannigan, 1995: 30).

A perennial tension seems to exist between the goal of fostering research in the subfield and the professional project of defining a distinct stand-alone empirical field of research. For example, Catton and Dunlap's (1980) New Ecological Paradigm—the shift away from anthropocentric (human-centered) to ecocentric thinking (humans are one of many species inhabiting the earth)—is a central, influential theoretical insight of environmental sociology. Yet this argument has generated less research interest outside the specialty field (Hannigan, 1995). Beck's

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(1992) *Risk Society,* on the other hand, has had considerable impact beyond the subfield, perhaps because it approaches the subject of environmental risks from a more established tradition dealing with the macro-sociology of social change (Lash and Wynne, 1992) rather than from the subfield-specific concerns of environmental sociology. The differential impact of these two strategies highlights the tensions over the value-added creation of distinct specialty fields versus remaining engaged with established disciplinary approaches.

Perspectives from Environmental Management

Scholars in management schools have also entered this research domain. An international group of scholars, the Greening of Industry Network (GIN), was formed in 1989. It produced one of the first collections of research in environmental management. GIN participants argued that "most regulation has not been based on a solid understanding of how industrial firms operated" and that future advances in environmental policy required an appreciation for the "intradynamic and interdynamic processes" of organizational learning that incorporate an awareness for how "various groups both inside and outside the firm conjointly shape its behavior and strategy" (Fischer and Schott, 1993: 372).

This first initiative to build a research community among management scholars was followed by the formation of the Management Institute for Environment and Business (MEB, now a division of the World Resources Institute) in 1990 and the establishment of the Organizations and the Natural Environment (ONE) special interest group of the Academy of Management in 1994. To support this burgeoning research area, special issues on the natural environment and organizations have appeared in the *Academy of Management Review* (1995), *American Behavioral Scientist* (1999), *Business History Review* (1999), and *Academy of Management Journal* (2000). Further, academic journals dedicated to the interface between managerial action and environmental protection also emerged in the 1990s, including *Business Strategy & the Environment* and *Organization & Environment.*

The corpus of research parallels developments in environmental sociology. For example, one common theme has been the shift from an anthropocentric to ecocentric perspective similar to the New Ecological Paradigm (Colby, 1991; Gladwin, Kennelly, and Krause, 1995; Purser, Park, and Montuori, 1995). But the primary focus of this research domain is on the behavior of the firm, management research, and management education. Further, much of this research has been normative in focus, focusing on understanding and predicting why and how corporations "can take steps forward toward [being] environmentally more sustainable" (Starik and Marcus, 2000: 542). Some researchers have focused on the implications of the shift

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to an ecocentric perspective for organizations (and corporations in particular) (Starik and Rands, 1995; Shrivastava, 1995). Others have considered how to merge existing concerns for economic competitiveness with environmental demands to gain market advantage (Schmidheiny, 1992; Smart, 1992; Porter and van der Linde, 1995; Stead and Stead, 1995; Roome, 1998; Sexton and others, 1999).

Moving to a multilevel analysis, some of this research has focused on why firms respond to ecological issues by analyzing both individual and organization level variables (Hart, 1995; Lawrence and Morell, 1995; Lober, 1996). Individual level variables of concern have included management leadership styles (Egri and Herman, 2000) and individual interpretation and intention (Ramus and Stegner, 2000; Flannery and May, 2000). Organizational variables studied have included identity and environmental interpretation (Sharma, 2000) and organizational culture (Hunt and Auster, 1990; Roy, 1991). Other scholars focus on the role of organizational clusters or fields as determinants of corporate environmental behavior (Jennings and Zandbergen, 1995; King and Lenox, 2000; Bansal and Roth, 2000).

An underlying tension parallels that within environmental sociology—the question of whether the goal of this group of researchers is to create a distinct specialty field of management inquiry. Some have argued that academic research in the "organizations and natural environment area" is based on a vision of practice and policy based on new values, attitudes, and behaviors (Starik and Marcus, 2000). Others consider this an empirical domain into which existing theory can be applied. These are fruitful tensions about intellectual and professional strategies.

WHY YOU SHOULD READ THIS BOOK

Table 1.1 reports key features of field-level analysis and the redirection of research questions of organization theory, environmental management, and policy that a field perspective makes possible. We have organized the empirical chapters in six sections that provide substance to these new directions. The chapter authors report empirical research on a variety of organizational processes and institutional mechanisms that shape possibilities for organizational structure, culture, and action in broad fields of activity and policy process. They analyze issues at the level of the company, trade association, industry, regional regulation, federal regulation, transnational comparisons, international standards, and society. The empirical cases include recycling, global climate change, acid rain, solid waste management, oil spills, dam building, and endangered species protection. They employ disciplinary foundations including organization theory, management studies, sociology,

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international regime studies, psychology, political science, and the social studies of science and technology. And the research deals with a range of policy and management issues such as corporate environmental reporting, voluntary agreements, industry/government collaboration, environmental impact assessments, emissions trading schemes, open-sourcing environmental policy, regulatory enforcement, and proactive environmental strategy.

Institutional Origins: Competing Frameworks and Logic

A central theme of this book is that environmental issues are a domain in which logics and ideologies compete for meaning and legitimacy. The first four chapters chart ways that plural and contested logics inform strategy, policy, and organizational actions. The environmental issues make vivid why contending logics and ideologies matter and how systems of meaning ground large-scale structures and local action; the routinely contested nature of such frameworks and logics over time and across settings; the specification of variations in policy and practice that result, and the value of research into the organizational origins and sources of available models of environment and action.

Frank (Chapter 2) investigates the fates of two historically available "global" conceptions of the environment—one justifying nature protection in moral terms, one in rational scientific terms. Despite considerable support for the moral model from the late nineteenth century, Frank finds that the growth of a rationalized global culture reinforces central assumptions of the scientific model of an ecosystem. This scientific model of nature protection is that which most organizations and policies embody today as a core conception of the interface of social and natural environment.

Jennings, Martens, and Zandbergen (Chapter 3) offer a grounded case study countering Frank's chapter. They focus on the administrative politics of environmental enforcement in the Lower Fraser Basin (LFB) of British Columbia. They develop a close empirical study of "complications in policy compliance" that highlights the organizational processes and institutional mechanisms that explain the substantial variations in enforcement intensity under a common regulatory regime. Jennings and colleagues show that provincial politics, variations in local geography, resources for regulatory agents in each district, the nature of the environmental issue, and characteristics of the regulated organizations (such as being large, in primary manufacturing, having multiple units, and having a resource permit) provide the basis for heterogeneous outcomes in enforcement practice.

Morrill and Owen-Smith (Chapter 4) develop a narrative theory of organizational field development, showing how narratives are cultural resources that con-

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tribute to the creation (and change) of institutional fields. They analyze three cases of environmental dispute resolution—the Storm King Mountain hydroelectric plant, river management in the Snoqualmie River Valley, and the Santa Barbara oil spill—to identify narratives consistent with technocratic, pluralist, and communitarian collective action frames. They suggest further that the narrative styles that institutional entrepreneurs use affect the enactment of these collective action frames, in turn shaping the emergence of environmental conflict resolution strategies. This chapter contributes a novel research strategy with which to study institutional change, macro-micro linkages, and narrative approaches to field heterogeneity.

Levin and Espeland (Chapter 5) report on the creation of markets for sulfur dioxide (SO_2) pollution under the 1990 Amendments to the Clean Air Act. The authors highlight the cultural, cognitive, and organizational work needed to create and sustain these markets, which they refer to as the work and politics of "commensuration." They explain how commensuration, the transforming of qualitative distinctions into quantitative ones through a common metric, was crucial for turning SO_2 into a commodity amenable to marketization. But commensuration creates some forms of knowledge while obscuring others. This chapter identifies the complex institutional activity requisite for making such marketizing projects feasible. It also attends to the persisting dilemmas and contradictions in such policy initiatives.

Beyond Isomorphism: Structural Variation and Collective Rationality

Studies of institutional isomorphism occupy much research attention, often to the neglect of more textured conceptions of the structuring of organizational fields and the research on the collective rationality that precedes change processes, such as isomorphism. This section emphasizes the analytic and practical value of focusing on the dynamics of collective rationality and the sources of structured variation. These four chapters make this point by reconsidering the causal linkage between the degree and form of collective rationality in a field, available level and type of change mechanisms, and outcomes such as homogeneity of structures and strategies.

Milstein, Hart, and York (Chapter 6) examine standard mechanisms of institutional change, presenting evidence that coercive pressure on companies to improve their environmental performance can result in industry and firm-level variations in environmental strategies, rather than isomorphism. The findings come from a comparative study that uses a subset of S&P 500 companies in the Interfaith Center on Corporate Responsibility Company Environmental Profiles

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Directory (IRRC, 1992). The authors compare one industry under heavy coercive pressure (chemicals) to another under lighter pressure (computers) to show how environmental strategies (emissions, spills, and compliance efforts) vary more in highly coercive than lightly coercive environments. This chapter challenges the baseline model of institutional isomorphism by pointing out the interplay of organization and policy mechanisms. This is a task the other three chapters in the section extend by highlighting institutional processes occurring in complex structured policy fields and recognizing several outcome types as institutional effects.

Levy and Rothenberg (Chapter 7) develop "institutional embeddedness of strategy," and provide a detailed discussion of cross-national variation in policy styles among auto companies. The authors examine differences in strategic responses between auto companies in the United States and Europe toward the environmental issue of global climate change. They argue that top management definitions of corporate strategic interests develop from culturally variable attitudes to the particular environmental issue, the prospects for an appropriate technological response, anticipations concerning consumer responses, and expected policy responses. Firm interests are constituted in the context of a firm's structures and sense-making frameworks and in interactions with a wider field of industry associations, universities, the media, and national and international governance structures. Their model of institutional change underscores the importance of local histories and experiences in shaping corporate strategic issue definition and responses.

Forbes and Jermier (Chapter 8) start with insights from organizational culture frameworks, including symbolic organization theory, to elaborate how and why organizations adopt green ceremonial facades. The chapter scrutinizes the contemporary trend toward proactive environmental management by addressing the limits and opportunities of culture-based strategies. The chapter acknowledges reasons to be skeptical about voluntary initiatives to promote organizational greening, but contends that seemingly surface compliance and ceremonial actions might become steps taken along the path toward authentic organizational change.

Hironaka and Schofer (Chapter 9) develop central theoretical and conceptual issues about the decoupled features of regulation in policy systems, using the case of the origins, spread, and effects of NEPA (National Environmental Policy Act), which are mandated environmental impact assessment reports. This chapter suggests that decoupling the intent and practice of Environmental Impact Assessments (EIAs) may be a result of technical and practical challenges to performing high-quality assessments that include fundamental factors such as a lack of resources, lack of organizational capacity, and multiple organizational goals. The

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chapter argues for a more basic insight about organizations and policy systems: that this variance and decoupling, the perceived failures of EIAs, is also evidence of more basic effects of the EIA legislation that includes putting environmental policies on national agendas, creating nodes for environmental protest by citizens and international organizations to occur, and increasing overall environmental awareness.

Institutional Processes of Negotiation and Narrative

The key construct of "institutionalization" suffers from underspecification in much contemporary research. Organizational studies of policy have long pointed to the variety of political struggles and negotiations that shape outcomes at each stage in the policy process. The chapters in this section use negotiation and narrative approaches to engage standard views of institutional process with research on conflict, discourse, and firm- and issue-specific initiatives in shaping policy. These chapters explore how organizations inject their interests and identities back into a broader organizational field, presenting this process in the idiom of contemporary theories of negotiation and dispute resolution.

Troast, Hoffman, Riley, and Bazerman (Chapter 10) discuss the tactics used by a specific firm in its attempts to negotiate a Habitat Conservation Plan, an emergent form of regulatory compliance, as a point of access linking field-level and negotiations arguments. This chapter combines institutionalist insights about socially skilled actors and core claims from negotiation studies to give practical shape to what institutional entrepreneurs do in the policy process. With the growing emphasis in institutional theory on conflict, contestation, and change, negotiation research is a natural complement. Conversely, the authors illustrate how institutional theory can inform the negotiation literature by offering a broader framework for the social context of negotiating processes. This cross-fertilization also provides a nice contrast between a positive and a more prescriptive scientific orientation—institutionalism versus negotiation research, respectively—and a useful avenue for the former to provide tools for policy analysis.

Sastry, Bernicke, and Hart (Chapter 11) discuss attempts by the Monsanto Company to project an image to a broader organizational field through the content of its annual Corporate Environmental Reports (CERs) during the 1990s. The authors find that the thematic content of the reports during this time period shifts from specific "integrationist" promises to reduce pollution in the first half of the 1990s, to a more open-ended "anticipatory" orientation in the late 1990s. They argue that Monsanto's response to institutional pressures was not simply a one-shot

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or mechanical decoupling of the institutional and technical domains, but rather involved redefining process goals and structural arrangements. During this period, Monsanto reframed its earlier goals to reduce pollution emissions by 90 percent when it could not achieve reductions and spun off its chemical producing divisions into an autonomous corporation during the late 1990s.

Howard-Grenville (Chapter 12) turns the focus to industry-level analysis—to the attempts by the semiconductor manufacturing industry sector to develop new rules for reduction of PFC emissions (a global warming gas) in response to pressures from broader field-level constituencies. Where Chapter 11 focuses on corporate-initiatives to manage identity in a wider policy field, Howard-Grenville focuses on industry collective efforts. This chapter describes how actors and their interpretations of the central issues changed over time, resulting in changes in the visible trappings of institutionalization—rules and structures. Two different mechanisms of institutional evolution are identified: the transfer or reframing of core ideas, and the broadening and deepening of institutional rules and structures. She argues that the power of individual actors to influence institutional outcomes is contextually contingent. This reinforces the policy insight that efforts to influence institutions for environmental protection need to take into account a broader political economy of issues including topics indirectly related to environmental impact.

Field-Level Analyses

Field-level analyses promote attention to the social and cognitive structuring of policy fields. To date, much field-level analysis focuses on broad social structures and interdependencies. From the original arguments in Bourdieu (1983; 1987) and DiMaggio and Powell (1991), both contradictory logics and more local contexts are crucial in the ways that fields matter for firm structures and strategies. The three chapters in this section highlight field dynamics on three levels. These chapters challenge future researchers to specify field-level structures and processes more specifically and to recognize the multiple dimensions along which fields take form. Also, they extend the standard framework of field elements (logics, governance arrangements, and actors) to include intermediate institutions and the salience of local sense-making activity.

Bansal and Penner (Chapter 13) investigate interpretations of the recycled newsprint issue by four newspaper publishers in Michigan. The authors identify the regional networks within the recycled newsprint field, emphasizing how local meaning frames and enactment processes affect the variable social definition of the

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recycled newsprint issue. They find that feasibility, importance, and organizational responsibility for recycling account for variation in organizational responses. Because the four newspapers operated under common regulatory and normative conditions, this chapter points to ways that cognitive models of institutions can help in explaining differences in organizational behavior. The chapter connects arguments from cognitive strategy theory on issue interpretations to institutional analysis in order to explain heterogeneity in firm responses.

Lounsbury, Geraci, and Waismel-Manor (Chapter 14) argue and present evidence for how discourse and symbolic activity help construct new field-level elements and centralize solid waste management practices. They report original data on the varied actors whose testimony at formative Congressional hearings in 1969 and 1970 helped shape the consensus meaning of alternative recycling technologies, incineration, and solid waste management. They show that even though a broad consensus emerged in the 1970s that gave primacy to incineration as the preferred solution for solid waste management, evidence such as content and participant analysis of Congressional testimony argues that recycling practices appeared to be an equally viable solution to field participants at the time. The chapter reports that field-level discourse shapes policy and practice outcomes, in this case by supporting a market efficiency logic that shaped preferences for alternative technical solutions.

Delmas and Terlaak (Chapter 15) discuss national variations in field structures and processes that affect the configuration of Voluntary Environmental Agreements (VEAs) between government and industry in the United States and the Netherlands. They distinguish two types of VEAs: negotiated agreements that provide regulatory flexibility in exchange for "beyond compliance" environmental performance, and public voluntary programs that provide other incentives such as R&D subsidies, technological assistance, or other help that has a positive effect on a firm's reputation in exchange for improved environmental performance. The authors show how fragmentation and open access in policy making hamper the implementation of VAs by creating uncertainties about government commitment to these agreements. A national culture marked by consensual policy making is also important to smooth the development of such negotiated agreements. When these two conditions are not met, voluntary programs to encourage best practices become the more viable solution to provide incentives for firms to improve their performance beyond existing regulation. The chapter extends the focus on United States experiences with regulation to include comparative evidence.

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Governance and Regulatory Structures

In this section, three chapters explore distinctly different notions of governance and control in light of institutions and policy. Each of the chapters explores how the traditional roles of players within a policy field are shifting and, as a result, how the locus of control for industry action changes.

Mylonadis (Chapter 16) argues that attempts to regulate the natural environment are limited by current institutional arrangements. In these arrangements, the government actors have a well-defined set of concerns evident in regulation, and firms are faced with the difficult task of conforming to these regulatory regimes. This "regulate what you know" strategy solves the problem of ambiguity over how and what to regulate, but has other costs: flexibility may be curtailed in favor of known (though perhaps suboptimal) solutions to environmental dangers. Drawing on models from other knowledge-intensive organizing contexts, Mylonadis argues that an "open-source" approach to environmental regulation that recognizes ambiguity in both environmental objectives and methodologies would potentially improve both the efficiencies of firms and the quality of the natural environment.

King, Lenox, and Barnett (Chapter 17) bring the discussion to the industry level and show how trade associations are becoming a source of organizational control. They introduce the idea that difficulties in information processing can cause the public to ascribe the same reputation to all firms in an industry. When stakeholders can sanction firms individually or collectively but cannot distinguish their relative performance, firms face a collective problem of "reputation commons." The authors contend that the strategic response to such a commons is likely to be different from strategies used to resolve resource commons problems. They argue that the intangible nature of reputation allows firms to reason with the resource either to distinguish (and thus privatize) their reputation or to reduce the likelihood of stakeholder sanction. The chapter explores some individual and collective strategies for resolving a reputation commons problem.

Mendel (Chapter 18) discusses international collective policy fields, analyzing how the growth of International Standards Organizations tools like ISO 9000 and ISO 14001 are subsuming national and regional forms of control by standardizing process evaluation of management worldwide. Mendel argues that in a global society in which it may be difficult to legislate and enforce technical criteria, standards regimes represent a unique form of social coordination and governance. ISO offers managerial accreditation systems for organizational actors using process standards, in contrast to conventional product or technical requirements, which

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has made ISO an attractive policy and control strategy to organizations in many countries and industries. The chapter discusses institutional and market sources in the diffusion of these international standards.

Closing Commentary

In this final section, short essays by senior commentators John Ehrenfeld and W. Richard Scott outline key observations, concerns, and encouragement for future research directions at the intersection of organizations, policy, and the natural environment. Ehrenfeld (Chapter 19) emphasizes institutional arguments in the broad sense of Giddens's work and speech act theory, and he emphasizes a focus on language, control, and action. He charts continuing challenges for institutional analysis in the context of both academic research and policy. Scott (Chapter 20) restates the importance of field-level analysis for studies of policy and organizations, and the opportunities for research in environmental management in the traditions of organization and the natural environment, environmental sociology, and linked approaches to contribute to new theoretical directions in institutional analysis.

CONCLUSION

This book treats the natural environment as a domain of activity and attention shaped by institutional and organizational processes, one in which contested ideologies, resources, and identities come to be refocused, redefined, and distributed (Espeland, 1998; Hoffman, 1997). In that spirit, the chapters span emerging perspectives from organization theory and management, sociology, international regime studies, and the social studies of science and technology. We see a synergy among this integration of theoretical fields both among each other and as they interconnect with the empirical domain of the natural environment. We hope this book helps to inform you about the genesis and diffusion of institutional beliefs, their connection to the natural environment, and theoretical models available for explaining both. The chapters suggest ways that discipline-based studies of environmental management and corporate environmentalism can inform each other and offer a point of departure for continuing studies of organizations, policy, and the natural environment.

NOTES AND REFERENCES

NOTES

1. By the mid-1970s, the American Sociological Association, the Rural Sociological Association, and the Society for the Study of Social Problems had all established sections related to environmental sociology (Dunlap and Catton, 1979). To provide an outlet for this growing volume of research, special journal issues were devoted to environmental sociology: *Sociological Inquiry* (1983), *Annual Review of Sociology* (1979, 1987), *Journal of Social Issues* (1992), *Qualitative Sociology* (1993), *Social Problems* (1993), *Canadian Review of Sociology and Anthropology* (1994) (Hannigan, 1995). Schools increasingly posted position announcements in environmental sociology, and numerous research centers and institutes have been established, including targeted funding for dissertations and some postdoctoral funding such as the NSF program initiatives in the early 1990s on global environmental change.

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