Articles

LINKING ORGANIZATIONAL AND FIELD-LEVEL ANALYSES

The Diffusion of Corporate Environmental Practice

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This article examines the diffusion of corporate environmental practice in the context of field-level dynamics. It builds a conceptual model that makes links among (a) the complex constituency of the institutional field driving environmental concerns, (b) the multiple cultural frames that emerge from that constituency, and (c) the corresponding structural and cultural routines that become enacted within firms. It offers contributions for research in the domains of both environmental practice and institutional theory. For environmental practice, this article attends to the genesis and diffusion of environmental practice by going beyond the individual organization level. For institutional theory, the implications of this model allow for more sophisticated notions of isomorphism and resistance to change. Inertia, traditionally a phenomenon attributed to the field, can be the result of organization-level dynamics that resist change. The article concludes with ideas for future research.

Waste minimization, pollution prevention, product stewardship, corporate environmental reporting, and green marketing: How do commonly accepted ideas and beliefs about corporate practice such as these form and diffuse throughout organizational populations? The question is important to organizational theorists and managers alike. A central concern for organizational scholars today is understanding field-level processes by which "collective rationality" first emerges and then subsequently changes (DiMaggio, 1995). A central concern for managers is developing corporate strategy during periods of change, instability, and uncertainty, when multiple interests have a stake in defining appropriate corporate action. In both cases, these periods of flux often involve the interests of diverse parties both inside and outside the organization. And the issues about which they are concerned are often social issues, such as environmental protection, health care, international relations, labor trends, and the global economy.

Stern and Barley (1996) argued that organizational theorists should contribute their analyses to these kinds of contemporary social issues. They argue that most academic contributions to such issues currently come from the disciplines of economics and law. But these disciplines focus narrowly on overly rational conceptions and coercive mechanisms for identifying and solving key issues of public con-

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cern. They neglect the systemic organizational contexts that establish parameters for individual choice and action. This article is an answer to this call. It is a model-building article that offers contributions both for expanding institutional analysis and elaborating the genesis and diffusion of corporate environmental practice.

Recently, critics of existing institutional research (Hirsch, 1997; Hirsch & Lounsbury, 1997) have argued that institutional literature (DiMaggio & Powell, 1991; Scott, 1995) places too much emphasis on the homogeneity of organizational populations and not the processes that may or may not create this outcome. This preoccupation facilitates a popular conception of the theory as embodying only stability and inertia as its central defining characteristics (DiMaggio, 1995; Greenwood & Hinings, 1996). By focusing on these characteristics, the complexity of organizational action is removed from field-level models. Unified or monolithic institutional forces are deemed to create isomorphic organizational responses (DiMaggio & Powell, 1983). Recent studies surveying organizational action in the context of their environmental and institutional contexts (Greenwood & Hinings, 1996; Hirsch & Lounsbury, 1997; Holm, 1995; Kraatz & Zajac, 1996) underscore the need for more work and more complex models in this area.

Similarly, much research into the relationship between organizations and the natural environment has focused mainly on the strategic actions of individual organizations (e.g., A. Lawrence & Morell, 1995; Lober, 1996; Shrivastava, 1995). For example, Hart advanced a "theory of competitive advantage based upon the firm's relationship to the natural environment" (1995, p. 986), and Porter and van der Linde argued that "companies must start to recognize the environment as a competitive opportunity" (1995, p. 114). But this article highlights the benefits of applying existent theories of organizational behavior toward understanding this phenomenon. By applying institutional theory to explain the evolving conceptions of environmental management, this article examines the cultural and institutional systems of which organizations are a part. It goes beyond assessments of individual action to ask questions about the fundamental sources of those actions.

To extend our understanding of institutional processes as they mediate between the firm and the natural environment, this article seeks to integrate organizational action into models of field-level dynamics by allowing more complexity in the framing of the institutional field and development of corresponding connections to organizational structure, culture, and practice. By paying balanced attention to both the influence of the institutional environment and the role of organizational self-interests and active agency within that environment (Covaleski & Dirsmith, 1988; DiMaggio, 1988; Perrow, 1985), this article advances the argument that organizational action is not a strict reaction to the pressures dictated by the field. Conversely, organizational action is not defined autonomously without the influence of external bounds. Institutional and organizational dynamics are tightly linked (Thomas, Meyer, Ramirez, & Boli, 1987).

The notion of collective rationality is to be seen not as an argument of strict environmental determinism but rather a choice among a bounded set of legitimately available options. Differential field effects occur at both the institutional and organizational levels, directed by both the institutional channels through which field-level influences affect organizational behavior and the organizational routines through which those influences are received, interpreted, and acted on. Institutional analyses answer questions about how social choices are shaped, mediated, and channeled. Organizational analyses answer questions about which social choices are chosen for action. As shown in Figure 1, this article will build this institutional

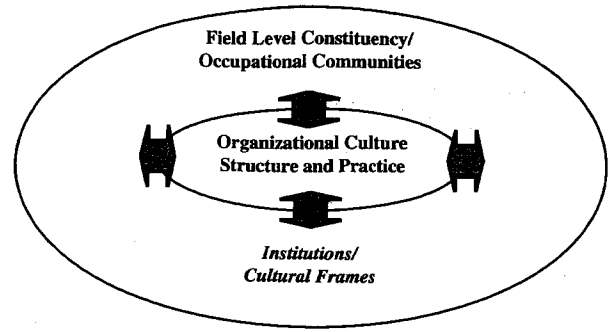

FIGURE 1: A Composite Model Linking the Field, Institutions, and the Organization

model by making links among (a) the complex constituency of the institutional field, (b) the multiple institutional definitions of legitimate repertoires that result from that constituency, and (c) the corresponding cultural routines that become enacted within firms. It will elaborate this model through an empirical application to the domain of environmental protection that includes each of these levels of analysis. Finally, it will offer a discussion of the implications and future research to further test this model.

THEORETICAL DEVELOPMENT: ORGANIZATIONAL DYNAMICS IN A FIELD-LEVEL CONTEXT

Firms are not autonomous units able to develop and implement strategy in isolation from the influence of the external environment. Institutional arrangements and social processes are central to the formulation of organizational action (Orru, Biggart, & Hamilton, 1991). They bound the range of possibilities such that organizational action must correctly be seen as a choice between a set of legitimate repertoires determined by the group of organizations that makes up the firm's institutional *field* (Scott, 1991). The field is a composite of constituents within the firm's external social, political, and economic environments (Powell & DiMaggio, 1991; Scott, 1995). But the field is not monolithic. Harrison White suggested we think of the institutional field, not as some tidy atom or embracing world, but rather as a "mineralized goo, some amazing swirl of local nuclei and long strands of order among disorder" (1992, p. 127). This is hardly a useful construct for measurement, but it highlights the complexity and amorphous nature of the concept of the institutional field. The field constituency defines both how to view organizational issues and what the appropriate responses should be. But more than just a collection of influential organizations, the field should be thought of as the center of common channels of dialogue and discussion. The field forms around a central issue—such as the protection of the natural environment—whereby competing interests negotiate over issue interpretation (Hoffman, 1999). The process may more resemble institutional "war" than isomorphic dialogue (White, 1992). As such, it is important to

distinguish between the organizational field and individual populations (or occupational communities, as will be discussed later) within that field. In practice, the field comprises critical exchange partners, sources of funding, regulatory groups, professional and trade associations, special interest groups, the general public, and other sources of normative or cognitive influence that effect individual or organizational action (Scott, 1991). Within this collective of actors, concepts of corporate practice are formed, defined, and subsequently redefined.

The form of this influence is manifested in three levels of institutions: (a) regulative, (b) normative, and (c) cognitive (Scott, 1995). Each level differs in the degree to which it is visible and ranges from the directly coercive to the taken-for-granted (Zucker, 1983). Yet, these three levels form a composite of institutional pressures (Hoffman & Ventresca, 1999) that create descriptions of reality for the organization: explanations of what is and what is not, what can be acted on and what cannot. As the institutional field establishes new codes of conduct, the emergent institutions will reflect these evolving perceptions as a source of empowerment (defining what they ought to do) and as a source of control (limiting options for consideration) (Fligstein, 1992; Jepperson, 1991). Hirsch (1986) described these evolving perceptions as cultural frames. For example, he described how the cultural framing of hostile takeovers evolved from the 1960s, in which it was considered a "deviant practice," to the 1980s wherein it became institutionalized as an accepted practice with its own specialized language.

As the field comprises subpopulations, each employing its own language and cultural frame for understanding the issue being debated within the field, the form of institutional pressure becomes equally diverse in its form and frame. The locus of these subpopulations is termed *occupational communities*—groups of constituencies that cut across organizations and share common language, perspectives, and assumptions about the nature of business (Schein, 1996). Occupational communities making environmental demands do so in the strategic language and perspective in which they reside. They redefine and transmit corporate norms and beliefs into terms, institutions, and cultural frames that represent their interests and culture.

At the organizational level, the firm responds to these pressures through preexisting channels of communication traditionally employed to engage these occupational communities and interpret and act on their demands. The firm becomes a composite of core organizational responsibilities, each with its linkages to its own relevant constituency of the external environment. Thus, the organizational response is reflected in functional competencies and the cultural frames that are embedded within each. Culture shapes individual consciousness throughout the organization, imposing routines that reflect socially approved, purposive action (Jackall, 1988). It guides the perception and behavior of all members as it develops over history and is formed around critical incidents and organizational responses (Schein, 1992). It is embedded and perpetuated by organization-level systems that lie on three levels: (a) artifacts, (b) espoused values, and (c) basic underlying beliefs (Schein, 1990, 1992). Each level differs in the degree to which cultural phenomena are visible and ranges from the very tangible, overt manifestations that one can see and feel to the deeply embedded, unconscious, basic assumptions that form the essence of culture (Schein, 1992). Yet, together they form the composite for how constituents within the organization perceive and make sense of changes within the external and internal environments.

In sum, the model presented in this article ties the level of the field with the level of the organization through cultural frames that lie within the communication channels of the firm's occupational communities. The form of organizational response

is as much a reflection of the institutional pressures that emerge from outside the organization as it is the form of organizational structure and culture that exist inside the organization. At this interface lies a fundamental interrelationship between institutional and cultural forms. More explicitly, the three levels of institutions (Scott, 1995)—regulative, normative, and cognitive—can be seen as having direct parallels to the three levels of culture (Schein, 1990, 1992)—artifacts, espoused values, and basic underlying beliefs (Bazerman & Hoffman, 1999). The deepest levels in both domains represent beliefs about appropriate action that are taken for granted and perceived as nonnegotiable. It is the most difficult level of culture and institutions for the researcher to detect and for the organizational or field members to articulate. Underlying cultural beliefs create "behavioral, emotional, and cognitive elements of the group members' total psychological functioning" (Schein, 1992, p. 10). Cognitive institutions guide our understanding of the nature of reality and the frames through which that meaning is developed. Both form a culturally supported and conceptually correct basis of legitimacy that becomes unquestioned.

The importance of this linkage is that the essence of organizational culture and the essence of institutions are described in the very same terms. The connections between them become an important component of any model of organizational change and can be seen in the taken-for-granted structures. Basic underlying beliefs of organizational culture and cognitive institutions each represent common concepts of unquestioned beliefs that perpetuate behavior without the knowledge of the actor, thus making them difficult to uncover. They can be shared from one organization to the next through organizational communities, as described in the cultural literature, or through institutional fields, as described in the institutional literature. Furthermore, given their institutional and cultural linkages, organizational behaviors affect what becomes institutionalized and vice versa. The two must be seen as interconnected and recursive. Social structure is both the mediator and the outcome of organizational practice (Giddens, 1979).

FIELD LEVEL DYNAMICS AND CORPORATE ENVIRONMENTAL PRACTICE

Why do firms incorporate concerns for environmental protection into corporate practice? The answer has both institutional and cultural components. It requires an understanding of who within the field is driving that concern, what cultural framing of the issue results, and how the organization enacts that frame and invokes a response. We must understand both external and internal dynamics to create a complete model for understanding the formation and diffusion of commonly accepted ideas and beliefs about organizational practice. We must look to certain organizations within the institutional environment that possess the power and capability to influence or establish the rules and norms of corporate behavior (Fligstein, 1991). Governments are the most prominent (and the most studied in both institutional and environmental analyses), able to establish laws that bind organizations to certain practices and procedures. Similarly, many empirical analyses look to social activists as lying at the center of social movements such as environmentalism (Olson, 1965; Zald & McCarthy, 1987). Neither is monolithic but, in fact, represent two occupational communities that have been the most visible drivers of corporate environmental practice. As a result, the two traditional cultural frames of corporate environmental practice represent their respective interests: regulatory compliance and social responsibility.

In the frame of regulatory compliance, the relationship between corporate practice and environmental protection becomes institutionally defined in terms of how environmentalism acts as a regulatory constraint. Through this lens, environmental protection is lamented as a useful social endeavor but a decidedly unproductive intrusion into corporate affairs (Walley & Whitehead, 1994). It is a restriction on or deviation from the central corporate activities. Environmental problems are treated as an economic externality or market failure (Cropper & Oates, 1992), and solutions must be artificially introduced through regulation. Responsibility is delegated to a regulatory affairs function with a focus on what companies *must* do to remain legal members of the community.

In the frame of social responsibility, the relationship between corporate practice and environmental protection becomes institutionally defined in terms of the impact of that practice on environmental ecosystems. In this format, social activists call field-level attention to the environmental damages of industrial activity, pointing out that U.S. industry releases up to 4 billion pounds of hazardous or toxic chemicals each year (to the air, water, or land) (U.S. Environmental Protection Agency, 1992) and contributes to increasing problems of greenhouse gas buildup, ozone depletion, and air and water pollution. Faced with such a cultural frame, corporations delegate responsibilities to a public affairs function with a focus on what corporations should do to offset these transgressions and remain legitimate members of society.

In both cases, corporations will be expected to do little to protect the environment unless the government forces them or activists shame them. Institutional pressures are coercive in nature, driven by the threat of either legal sanction (civil, administrative, and criminal penalties) or social sanction (protests, negative press, diminished reputation and image). The environmental issue becomes institutionally defined as external to business interests, a threat or an unwanted restraint on corporate affairs from sources separate from the key drivers of the market system. Corporate environmental practice is then predicated on buffering the operating core and managing these constraints on corporate objectives.

But more recently, the field-level drivers of environmental protection have become more complex, creating more diverse cultural frames than mere regulatory compliance or social responsibility. Environmental concerns are now originating from occupational communities such as academic institutions, trade associations, competitors, banks, insurance companies, investors, religious organizations, local communities, and the press, each of which is altering the definitions of legitimate corporate environmental practice. Through a complex web of constituents, environmental protection is becoming culturally reframed from something external to the market environment to something that is central to the core objectives of the firm. This triggers a more complex set of strategic responses than has been traditionally invoked. As such, organizations must devote resources toward environmental initiatives in a way that simultaneously satisfies their economic objectives. Rather than denying or lamenting environmental pressures, organizations are now considering how environmentalism and business strategy can be mutually developed (Miller, 1998; Porter & van der Linde, 1995). By looking to the expanding field of environmental pressures, we can see how the issue is being institutionally redefined, culturally reframed, and organizationally acted on.

Field-Level Drivers of Corporate Environmental Practice

Field-level drivers of corporate environmental practice have been studied within the context of interorganizational relationships (Clarke & Roome, 1999; Starik & Rands, 1995) and stakeholder management (Berman, Wicks, Kotha, & Jones, 1999; Clarkson, 1995). Many of these studies have individually identified organizations such as government, trade associations, financial institutions, accounting professions, suppliers, partners, nongovernmental organizations (NGOs), and employees as being critical in this process. But few studies to date have empirically collected a composite analysis of this field-level effect. By building on and linking the individual analyses that exist, the foundation of this composite can be constructed and built upon.

For example, government action cannot be seen as an isolated force within the field. Their action is often the product of pressures from within the field. In a survey of *Fortune* 500 CEOs in 1995, Andrews (1998) found that coercive legal requirements and public perceptions were most important in driving environmental business strategy. But he also found that scientific evidence, shareholder expectations, customer requirements, industry norms, employee suggestions, and supplier actions were also influential (in decreasing order). Using network analysis, Andrews considered how the government itself is an actor within the field, being influenced by these field-level constituencies. Consistent within this theme, O'Leary (1991) studied how individual citizens, through citizen-suit provisions of Environmental Protection Agency (EPA) statutes, were able to alter the policies and administration of the agency in the 1980s. Protess et al. (1987) found evidence of policy agenda-setting effects from media coverage of toxic waste issues. Pizzolatto and Zeringue (1993) studied the links between the passage of laws to protect the environment, consumer interest in environmental issues, and corporate actions that seek to satisfy both. These linkages were found to be dual directional, with corporate action seen as both the cause and effect of external pressures. Each of these studies supports the argument toward a field-level analysis of environmental protection with the government as one part of the network, both influencing and being influenced by constituents in the field.

These constituents can also affect corporate activity directly. Many existing studies have identified these pressures and their importance. In studying recycling initiatives, Jennings and Zandbergen (1995) identified the constituency of the organizational field in terms of local organizations involved in the process, such as paper producers, paper purchasers, paper recyclers, governments, and consumers. A. Lawrence and Morell (1995) studied eight manufacturing firms in Santa Clara County, California, and found that firms were driven by regulations, followed by cost factors and pressure from stakeholders such as environmental NGOs and shareholders. Clemens and Douglas (in press) observed that the drivers of corporate environmental action in the steel industry were international agreements, federal and state agencies, consumers, and industry standards (i.e., ISO 14000). Dupuy (1997) studied the development of pollution control technologies in the Province of Ontario and found that although government regulation was a critical motivator of technological development, the influence of suppliers and users of that technology was also strong. And finally, several studies have highlighted the field-level dynamics by which environmental standards transfer across international boundaries. Anwar (1999) and Sorstrom (1999) studied the linkages between multi-national firms, international government agencies, and environmental practices within China. Liverman, Varady, Chavez, and Sanchez (1999) studied environmental

management along the U.S.-Mexico border and found that binational agreements were particularly important, but also important were the actions of environmental NGOs in gaining their acceptance.

Each of these studies highlights the interconnections among field-level constituencies. To create a structured model of the categories of occupational communities influencing corporate environmental practice, one must consider each constituency that has a more direct impact on business practice, norms, and beliefs. Nine occupational communities will be considered here: suppliers and buyers, consumers, financial institutions, shareholders, investors, insurance underwriters, trade associations, academic institutions, and religious institutions.

The environmental impact of a product is the sum of the impacts of each input and output from suppliers and buyers in the value chain (Goodman, 1998). Companies become tied to one another. If one company introduces a toxic material into the process, all companies must now consider how it should be handled. Furthermore, if a company toward the end of the value chain is receiving a signal from end users that the product is environmentally destructive, they must impose restrictions on their suppliers in order to remove it. Some companies, such as Nike and Proctor & Gamble, are considering the implications of the actions of other organizations up and down the value chain in the impact of their environmental activities (Jablonski, 1994; Katz & Sharp, 1994; Smart, 1992). Similarly, some consumers are willing to make the connection between environmental performance and their buying decisions. SC Johnson & Sons conducted a study that found that this class of "green" consumers made up at least 25% of the population in 1993 and was growing (SC Johnson/Roper, 1993).

One important component of the supply chain is capital, and some financial institutions are beginning to look at the environmental practices of the applicant, equating poor environmental performance with high financial risk. The European Bank for Reconstruction and Development (EBRD) has written into its establishing agreement that it will "promote in the full range of its activities environmentally sound and sustainable development" (EBRD, 1991). In April 1995, the government of Brazil required all banks and credit institutions to grant loans only to projects that take environmental impacts into consideration. In 1992, the United Nations Environment Program (UNEP) coordinated a declaration of environmental commitment of the banking industry, with signatories committing to incorporate environmental factors into their daily business practices (Schmidheiny, 1996). In a survey of European banks, 15 participants said that they offered discounted rates for environmentally responsible companies, shaving as much as 50 basis points from the rate and halving the fees (Monroe, 1999).

Another source of capital, shareholders have exerted environmental pressure on corporations since 1989. The Council for Environmentally Responsible Economies (CERES) was the first to enlist investors to file environmental proxy resolutions in annual board meetings and seek the endorsement of its environmental principles. More recently, the environmental community has begun to engage this constituency. According to Julie Tanner, senior financial analyst at the National Wildlife Federation, "We have been training people all around the world about the role of financial institutions and where they can find points of leverage" (Monroe, 1999). Even without such outside influence, some shareholders have taken it upon themselves to exert environmental pressures on the companies in whom they own stock. The Maxxam Corporation and Occidental Petroleum Company have recently been targets (Nieves, 1999; Waldman, 1999).

Beyond banks and shareholders, broad-based investors are also an important source of capital. And like banks and shareholders, they are beginning to equate environmental performance with good management. Some studies have found a positive correlation between environmental and economic performance. The Alliance for Environmental Innovation reviewed 70 research studies and concluded that companies that outperform their peers environmentally also outperform them on the stock market by as much as 2 percentage points. ICF Kaiser found a similar correlation in a study of 300 of the largest public companies in the United States (Feldman, Soyka, & Ameer, 1996). With this correlation as a trigger, some funds are buying stocks that represent "best of class" in basic industries such as paper and steel. These companies, according to fund managers, manage their environmental affairs responsibly relative to their industry competitors and will likely manage their overall operations more responsibly. This type of screening has, for some, led to greater returns (Aspen Institute, 1998; Bailey & Syre, 1998; Deutsch, 1998). In 1998, the New York Society of Security Analysts—the largest and most influential society of investment professionals in the world—launched Uncovering Value, a series of environmental seminars to examine how progressive corporate environmental practices contribute to a company's performance, profitability, and growth (Descano & Gentry, 1998).

Insurance underwriters are beginning to see environmentally risky operations as being correlated with increased financial risk and are beginning to apply environmental criteria for minimizing that risk in their underwriting practices (Leggett, 1996; Schmidheiny, 1996). In this way, they are demanding sound environmental practices before a policy is written. In November 1995, the industry developed a UNEP-supported Statement of Environmental Commitment, with 78 official signatories making commitments to include the environment as one of the value drivers in their underwriting decisions (Frankel, 1996).

Trade associations are making environmental demands on their constituent members. Beginning in 1989 with the Chemical Manufacturer's Association (CMA) Responsible Care Program, similarly designed programs have flourished in other industries such as petroleum, printing, textiles, paper, lead, and automobiles.

Finally, shifting norms on the appropriate role of the corporation in interacting with the environment are taking place within the institutions of several fundamental social arenas. First, academic institutions are teaching students about the environment in ways that are far different than that of previous generations (Dembner, 1994). Not only students in grades kindergarten through 12 (National Science and Technology Council, 1994) but also students at the university level are being offered a growing number of environmental courses in business, engineering, science, journalism, law, and public policy schools (Finlay, Bunch, & Neubert, 1998; S. Friedman, 1996; Makower, 1993; Mangan, 1994; Pham, 1994; Wagner, 1994). Also, many of the world's religious institutions are changing their views of the morality of behavior toward the environment. The Presbyterian Church decided to place environmental concerns directly into the church canon, thus making it a sin to "threaten death to the planet entrusted to our care" (Associated Press, 1991, p. 4). The Roman Catholic Church equated environmental degradation with theft from future generations in its new catechism (Woodward & Nordland, 1992). His All Holiness Bartholomew I, spiritual leader of the world's 300 million Orthodox Christians, equated specific ecological problems with sinful behavior (Stammer, 1997).

All of these pressures add up to a collectively different set of field-level pressures than what corporate decision makers faced in the past. The notion that envi-

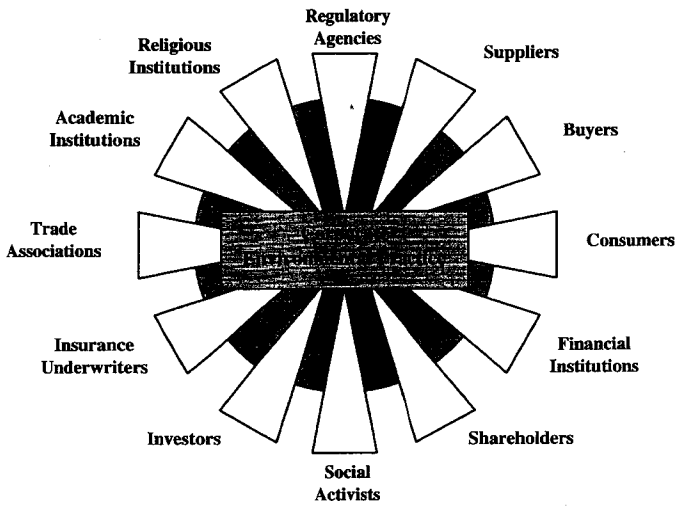

FIGURE 2: Field-Level Communities Defining Corporate Environmental Practice

ronmental pressures emerge from a monolithic institutional field is inaccurate. These pressures, in fact, emerge from many diverse sets of interests as depicted in Figure 2.

The Cultural Framing of Corporate Environmental Practice

Out of this evolving field of constituents comes an evolving set of definitions for environmental issues, social issues, and legitimate corporate practice. This field exists in dynamic form (Greenwood & Hinings, 1996; Hoffman, 1999) such that the cultural framing of environmental protection has been evolving steadily over the past decades. What was called ecology in the late 1960s has evolved successively into environmental management, waste minimization, pollution prevention, product stewardship, total quality environmental management, ecoefficiency, industrial ecology, and environmental strategy. To understand this evolution, we must connect the cultural framing of environmental protection to the specific interests presented by each field-level source. As the pressures on the organization emerge from each institutional constituency, it becomes redefined and transformed. Each field-level constituent employs a different set of institutions and cultural artifacts in articulating what environmental protection means.

For example, insurance company underwriting practices act as consulting recommendations, influencing how companies handle their environmental affairs. If companies choose not to adopt insurance-recommended practices, they will find their business costs raised through higher premiums. And indirectly, insurance companies possess large amounts of investment capital from premiums that can be used to sway financial markets (Schmidheiny, 1996). So when environmental pressures are imposed on the corporation from insurance companies, environmentalism

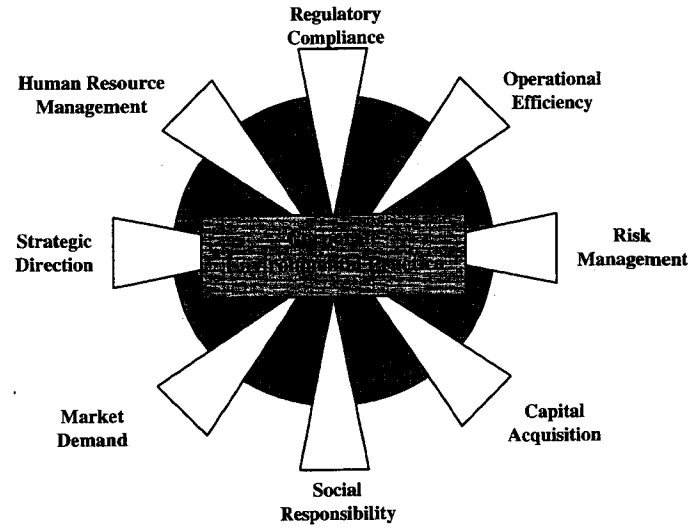

FIGURE 3: Cultural Frames for Corporate Environmental Practice

becomes translated into an issue of risk management and capital acquisition, two issues of central importance to corporate practice.

Similarly, when buyers and suppliers impose environmental pressures on the firm, they become framed as an issue of operational efficiency through resource acquisition, processing, and sale. When imposed by banks, shareholders, and investors, they become framed as an issue of capital acquisition. When consumers begin to consider environmental concerns in their purchasing decisions, the issue becomes framed as an issue of market demand. When competitors begin to use the environment as a strategic issue or challenge how others use it, the issue becomes translated into one of competitive strategy. When trade associations see opportunities in presenting a unified front on environmental affairs, the issue becomes one of industry reputation or external and government relations. And when academic and religious institutions begin to impose environmental concerns, the issue becomes framed as one of human resource management with regard to personal values and corporate culture.

By tying environmental concerns to the institutional constituents driving it, environmental protection becomes less an environmental issue, framed instead in terms that reflect the cultural interests, beliefs, and perspectives of its occupational community source. Moving beyond regulatory compliance and social responsibility, these forms can be collapsed into six basic frames employed by business groups to justify corporate environmental practice (Aspen Institute, 1998; Global Environmental Management Initiative, 1999) as shown in Figure 3.

Environmental protection as operational efficiency. In this cultural frame, environmental protection is redefined as a tool for finding new ways to optimize

operations. The central tenets are eco-efficiency, waste minimization, and pollution prevention. By reducing the input of total or hazardous materials, or by minimizing the output of wastes, some argue that it is possible to lower the costs of production (Porter & van der Linde, 1995). First, through process optimization, material yield and resource utilization rates may be increased, thereby reducing costs per unit of product produced. Second, minimizing wastes, emissions, and discharges can lower regulatory compliance, engineering, control management, and disposal costs. Further, it can reduce liability costs from potential spills and health and safety exposures, which can translate into lower insurance premiums and reduced threats of worker injury lawsuits. And finally, integrating concerns for pollution prevention into engineering design criteria can often expose previously unseen opportunities for streamlining or eliminating process components and maintenance procedures. Through this framing, environmental practices are argued to result in strategic improvements by reassessing taken-for-granted engineering practices, rules of thumb, and protocols.

Environmental protection as risk management. In this cultural frame, environmental protection is redefined as an opportunity to reduce costs associated with environmental risks. First, limiting environmental exposures experienced by employees, contractors, and customers can directly lower corporate insurance premiums. Second, environmental risk management strategies may reduce the need and associated costs of contingent emergency procedures in both the short and the long term. In the short term, portions of emergency preparedness programs may be rendered obsolete after hazards are eliminated. In the long term, proactive measures and effective plans may reduce the costs of emergency response and cleanup and the associated regulatory penalties and legal expenses. And finally, as product stewardship concerns become more pervasive, incorporating environmental considerations into initial product design programs may reduce the potential for ongoing liabilities associated with product use, misuse, and disposal. Through this framing, environmental protection programs are argued to result in strategic improvements by reducing liability exposure and waste disposal liability risks.

Environmental protection as capital acquisition. In this configuration, environmental protection is framed as an opportunity to reduce costs of capital investments in new sites, facility construction, and the start-up or redesign of manufacturing lines and new products. First, integrating environmental considerations into the capital acquisition and change processes may reduce the uncertainty of corporate transactions. Environmental due-diligence activities may uncover hidden environmental liabilities in property acquisitions and divestitures. Brownfield redevelopment, for example, may bring strategic business and tax advantages if one translates the environmental hazards into strategic opportunities. Second, intervening in capital projects early to secure permits, address regulatory requirements, and foresee environmental problems may streamline new product development or facility expansion. Attention to environmental protection and community relations, for example, can play a key role in overcoming community opposition to new plant construction or facility expansion. And third, companies may reduce the overall operating expenses of new facilities by incorporating environmental considerations into the initial design. Because plant upgrades made in response to increasing environmental pressures cost more than at initial process design, overall operating costs will be reduced. Through this framing, environmental protection programs are argued to result in strategic improvements through lowered cost of capital, reduced utility and maintenance costs, and improved working productivity.

Environmental protection as market demand. Framed as market demand, environmental protection is seen as an opportunity to enhance the market share for products and services by appealing to both end-use customers or buyers and up-front suppliers or vendors. First, companies may appeal to environmentally conscious consumers by increasing recycled or recyclable material use, reducing virgin material use, eliminating hazardous product constituents, and decreasing the environmental impact of their products. Such green marketing efforts may enhance the company's public image and the marketability of its brand name. In many industries environmental performance has become a lightening rod for public inquiry and consumer decision-making. Reputational effects from environmental problems circulate though the press and other channels, influencing consumer preferences, spurring boycotts, and in some cases affecting bottom line sales (as with the boycotts imposed on Shell during the Brent Spar disposal debate). Second, high environmental performance standards may also appeal to suppliers and buyers who may be seeking strategic advantage through their own environmental initiatives. Through this framing, environmental programs are argued to enhance public perceptions of a company and improve the marketability of its products and services. They are also argued to help secure beneficial supplier relationships and win supply contracts with new companies. Environmental considerations become one aspect of the value offered by a company.

Environmental protection as strategic direction. In this cultural frame, environmental protection is argued to expose important information and insights for guiding new strategic directions. This can manifest itself in a number of ways. First, by measuring environmental costs and risks associated with product or process lines, companies can identify strategic opportunities in redirecting attention and resources towards less risky and more attractive alternatives. Second, by remaining alert to changes in consumer preference, media attention, community concerns, and regulatory program trends, companies can exit increasingly risky business areas in favor of more secure options. Third, by attending to these trends, companies can also exert greater control over their image, reputation, and ultimately, financial performance by shifting organizational resources when needed. And finally, as markets and industries rapidly change, corporate environmental attributes and performance may help secure new markets and protect existing ones from external criticism, protest, and attack. For example, a management team that is alert to environmental issues and publishes their results through corporate environmental reports may find that investors or insurance companies will be more steadfast in times of tension or crisis. Through this framing, environmental protection programs are argued to create strategic opportunities through enhanced innovation and capitalization on both existing and emerging market demand.

Environmental protection as human resource management. Finally, improved environmental performance is framed as an opportunity to increase workplace productivity. First, a strong environmental reputation and environmentally safe working conditions can help a company attract higher-caliber applicants. This is particularly valuable as labor markets shrink. Second, leading environmental performers may improve their ability to retain such workers. This reduces the costs of recruiting and training new employees. Third, improved working conditions can increase worker productivity and process output. For example, improved indoor air quality,

reduced noise levels, and energy-efficient lighting upgrades have been argued to reduce absenteeism and improve staff morale and productivity. Through this frame, environmental protection programs are argued to increase competitiveness through improvements in staff commitment to the company and to the task.

In sum, the issue of environmental protection is actually a composite of many cultural frames. The issue has traditionally been framed as regulatory compliance and social responsibility but is now being framed in a variety of ways. Each of these frames is the product of the filtering of the issue through specific occupational communities that interact with business constituents. It is this level of framing that connects field-level dynamics with organization-level culture, structure, and practice.

Organizational Responses to Field-Level Pressures

Organizationally, the scientific validity of certain environmental issues is of less importance than the channels through which those issues are received. Powerful constituents within the institutional field translate environmental practice through the business channels of their occupational community. Organizations then enact a cultural and structural response that reflects their institutional source. Evolving institutional pressures for environmental protection make demands for concurrent and supporting shifts in organizational culture, structure, reward systems, and job responsibilities. Organizations interpret these pressures and develop an organizational response that is consistent with the interests of institutional constituencies.

At times, the field-level pressures for this consistency are coercive and clear. In 1993, for example, the EPA mandated organizational changes as part of an enforcement action against the United Technologies Corporation (UTC). The EPA fined UTC a record $5,301,910 for violations of federal and state hazardous waste and water pollution control laws, and as part of the settlement UTC was required to (a) implement an extensive multimedia environmental audit of all 26 of its New England facilities and (b) hire a management consultant to make management improvement recommendations for achieving compliance with every major environmental law at all of its facilities. According to an EPA press release, "this is one of the most extensive environmental audits ever agreed to in an enforcement action . . . by this settlement we have not only corrected past problems, but have also acted to assure future violations will be deterred" (Hoffman, 1997, p. 9).

But where such pressures are not so clear, greater understanding of the linkages between the field and the firm lies in understanding that external constituencies redefine the environmental protection issue into terms that reflect their own interests—terms with which the corporation may already be familiar. In the case of each constituency, the firm has preexisting models and language within its individual functions and competencies with which to conceptualize and formulate a response. By realizing this "fit," firms frame environmental issues as related to core business concerns. An efficient organizational response to institutional pressures involves the direction of environmental pressures to the functional levels best equipped to handle them given their culturally framed form, as shown in Figure 4. Through the channels of the firm's occupational communities, environmental issues diffuse from the periphery of specialized environmental health and safety departments to the core of the organization's functional competencies. Through this process, it transforms the work roles and functions of the various departments within the organization.

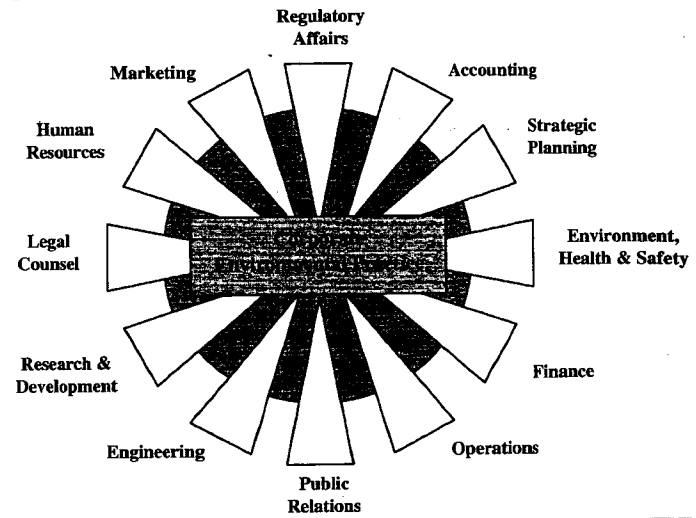

FIGURE 4: Functional Responses to Field-Level Environmental Pressures

Organizational Resistance to Field-Level Change

By incorporating organizations into field-level analysis, we can begin to identify new sources of resistance to change. Where fields are traditionally regarded as embodying stability and inertia, this model allows for the possibility that resistance to change can originate at the organizational level. Through structural inertia and cultural barriers, organizations can resist enacting new cultural frames of environmental protection as directed by the institutional field. Change requires that organizations break down traditional structures and beliefs that have become institutionalized over decades. For example, since the establishment of environmental regulations in 1970, most corporations have adopted a government-centered approach to handling environmental issues through a segmented division of responsibilities within the organization. Environmental affairs departments were developed as organizationally specialized functions whose objectives were to ensure that the corporation remained in compliance with environmental demands so that the operating core could remain focused on maximizing profits buffered from external interference. But such structural arrangements create communication breakdowns throughout the organization.

A survey by Arthur D. Little identified a lack of integration between departments as one of the major roadblocks to the effective management of corporate environmental issues (Shelton & Shopley, 1995). Departments within the same organization often could not communicate their interests or opportunities to one another. Beyond structural limitations to free flows of information, the language, rhetoric, objectives, and external constituency of the various departments limit the identification of strategically important environmental actions. For example, the environmental management staff often takes for granted that the value of their stra-

tegic environmental programs is apparent, so they fail to adopt the business metrics and lexicon that are employed by other parts of the organization in communicating that value, such as return on investment (ROI) and earnings per share (EPS). Instead, environmental managers often use nonbusiness acronyms such as pounds of toxics, biological oxygen demand (BOD), notice of deficiency (NOD), environmental impact statement (EIS), and life cycle assessment (LCA) that may be familiar to their external constituency but serve to distance other business managers from environmental matters.

Institutionalized routines can also inhibit change. On accounting balance sheets, for example, environmental protection costs are generally listed as a liability and not an asset, even if expenditures result in decreased compliance and disposal costs, savings in other areas such as improved public relations, or liability and regulatory reduction. Thus, departmental managers are often shielded from incentives to seek more efficient solutions to environmental problems as environmental costs are billed not to the department but to corporate overhead (see "Ignoring the Environment," 1996). For example, most corporations pay for energy costs out of overhead expenses. So although small incremental reductions can yield large company-wide paybacks, most firms overlook them as individual departments remain unaware of their economic impacts and focus instead on investments that increase output or market share (Brown & Levine, 1997).

A collaborative case study between Dow Chemical and the Natural Resources Defense Council found that organizational breakdowns were the primary inhibitor of the adoption of pollution prevention initiatives at one Dow facility despite the projection that the company could possibly save more than $1 million a year by eliminating 500,000 pounds of waste. Because the program was not required for the purposes of environmental compliance, it was not of central interest to production engineers, whose main priorities were capacity building, and did not appeal to business line personnel with profit-and-loss authority, so the project was not implemented. These staff personnel were more interested in maximizing profit for their business through yield improvements rather than waste minimization (Greer & Van Loben Sels, 1997).

Organizational change will involve the unlearning of what has been ingrained over the organization's history. And this will often invite resistance. Basic assumptions about organizational procedures and the realities of the external environment can become rigidly set and are difficult to reset. At times, this rigidity can be positive, allowing the organization to react rapidly to changes in the environment that fall within the range of issues previously encountered. But it can also operate as a pattern of thought and action, which can limit possibilities for creative action. Although the institutional field can evolve and allow greater flexibility in the repertoire of legitimate organizational action, the inability of the organization to respond may be the source of inertia and resistance to change. Isomorphism may then be the result of organizational inertia that holds to the historic responses to environmental pressures.

DISCUSSION: IMPLICATIONS FOR INSTITUTIONAL ANALYSES

The model presented in this article draws important insights for the study of institutions and their influence on corporate environmental behavior. It addresses two critical weaknesses in the existing literature. First, many institutional analyses treat the institutional field and its influence on organizational action as monolithic.

For example, Fligstein (1990) attributed the changing power base within American firms (from manufacturing to sales to finance) to power shifts created by institutional pressures from government regulation. Similarly, DiMaggio (1991) observed the institutionalization of the form of American art museums as the product of institutional pressures from trade associations and funding agencies. In each of these cases, the dominant constituency of the field, the form of institutional pressure, and the repertoire of organizational response were principally monolithic, originating from one or two organizations and yielding one organizational form. Hoffman (1999) introduced a more complex notion of a field moving through stages in which the constituency grew in number and interaction patterns. Yet, this study still presented the form of institutional pressure as monolithic, leading the subsequent industry response toward isomorphism, a homogeneous field-wide response.

This article suggests that fields cannot be conceived in such singularly clean and orderly terms. The field must be seen as, in fact, a highly complex collective of constituents whose composite influence on corporate behavior is varied and diverse. More than arguing that the firm exists within multiple organizational fields (Lounsbury, 1996), this article argues that this multiplicity is part of the same field. Thus, the institutions that define legitimate corporate practice, although centered on common beliefs, are equally diverse and complex. It presents a notion of the field as a highly diverse collective of actors whose composite influence on corporate behavior is varied and complex. Thus, the institutions that define legitimate corporate practice are equally varied and complex. Differential effects occur at the organizational level and the institutional channels through which field-level influences affect organizational behavior.

Second, few institutional analyses fully connect the influence of institutional fields to culture and practice on the organizational level. Most research analyzes the phenomena in terms of field-level change, not individual response. This leaves the theory disembodied and oversocialized. It describes the recipients of field influence as a homogeneous collection of organizational actors, each behaving according to a social script designed by the social environment (Granovetter, 1985). This article argues that the influence of the institutional field is varied within each organizational context. To understand firm heterogeneity within an institutional context, field-level analysis is only half of the equation. Organization-level analysis must be included. Some have attempted to bridge this gap, arguing that firms can respond strategically to institutional pressures (Oliver, 1991) or that individual actors may strategically influence the process of institutional change, becoming what might be called "institutional entrepreneurs" (T. Lawrence, 1999). But in these cases, the organization and the field are treated as separate and distinct. The firm responds to institutional pressures rather than acting within the bounds they create.

This article presents institutional pressures as a collective of cultural repertoires that bound possibilities for organizational structure, culture, and action. Yet the individual organization is still capable of choosing among this repertoire. This article connects the influence of institutions at the field level to the resultant culture and practice at the organizational level. Through cultural influences, action becomes a choice among a bounded set of legitimately available options and not a choice among an unlimited array of possibilities. Linking Figures 2, 3, and 4, we can model the interconnections between the field-level constituency driving environmental issues, the cultural frames employed by each, and the organizational response that is triggered by these varying constituencies.

By connecting institutional and organizational-level analyses, new and more complex models of change can explain the genesis and alteration of legitimate corporate practice. One important point that emerges is the notion of institutions as a source for change, whereas organizational inertia can be seen as a source of resistance to that change. This is a dramatic shift from traditional views. The institutional literature has often been criticized for its failure to adequately address the concept of change (Brint & Karabel, 1991; DiMaggio, 1988; Hirsch, 1997; Hirsch & Lounsbury, 1997). Traditionally, institutions are seen as powerful pressures for organizations to seek legitimacy and strive for social conformity (Orru et al., 1991), thereby resulting in an increasing homogeneity of organizations (Kraatz & Zajac, 1996).

The objectives of future work are to construct a field-based view of the drivers of corporate organizational thought and action, elaborate the linkages between organizational and institutional phenomena, and seek to explain under what circumstances change occurs at the level of the organization in defiance of institutional pressures (Oliver, 1991). Conversely, future work should also assess under what circumstances change occurs at the level of the institutional field although resistance lies at the level of the organization. Such models must include considerations for both institutional and cultural dynamics.

IMPLICATIONS FOR ENVIRONMENTAL ANALYSES

This article elevates environmental analysis to the level of the field and its relation to organizational practice. It depicts how individual strategic action is only possible within the range of available options defined by the organizational field. As the field evolves, so does that range of options. It treats institutions and organizations as the relevant level of analysis for these types of issues. Although technological and economic activity may be proximate factors in environmentally destructive behavior, this article focuses on the sources and structure of collective rationality, framing processes, and social and political institutions that embed those technical and economic factors (Bazerman & Hoffman, 1999; Dacin, Ventresca, & Beal, 1999; Hirsch, 1986). Further analytical study and public policy recommendations can benefit from an adjusted level of analysis that considers social and cultural sources of habitual action and social change.

The linkage between institutional constituencies and cultural perceptions of the environment is not entirely new. Ranniko (1996) examined the change in environmental consciousness in Finland by examining the structural and attitudinal background of environmental conflicts, in particular, the struggle over construction of tourist facilities and conservation of the wilderness on the mountain of Koli. By analyzing the varying cultural bases and motives of various populations, he concluded that it is important to study those social actors who participate in the defining of environmental problems. Similarly, in developing criteria for evaluating an organization's environmental performance, Lober (1996) identified the importance of relationships with external groups such as communities, shareholders, suppliers and consumers, the media, environmental groups, and the government. However, rather than viewing these relationships as sources of pressure from the external environment, he analyzed them as stakeholders who are affected by corporate action.

A focus on the field, institutions, and collective rationality yields insights about how social perception and enactment of environmental issues take place and, therefore, highlights the fundamental sources of organizational action as a response.

This allows us to go beyond assessments of strict individual action to understanding how conceptions of environmental issues are created and how those conceptions result in individual and organizational action that may conflict with environmental interests (Bazerman & Hoffman, 1999; Clark & Jennings, 1997). In particular, institutional and organizational analysis seeks to understand how ideas and beliefs about organizational strategies and practice become standard and spread in highly structured fields of activity (Edelman, 1990). Furthermore, it focuses on the dynamics by which these structures shift, create new realities for organizations, and redefine the basic resource context. Collective notions of what is appropriate corporate behavior emerge and evolve through field-level debate.

RESEARCH DIRECTIONS

In its most simple and basic terms, future research should analyze and measure the presence, scale, and meaning of the individual wedges in Figures 2, 3, and 4 and then analyze the connections between them. More specifically, the empirical task of testing institutional and organizational linkages will be to measure the diversity of both the institutions driving environmental pressures within a collective of companies and the corresponding organizational responses developed within each company. Unfortunately, deep-level analysis on each level typically employs different and, to some degree, mutually exclusive methodologies. Deep analysis of organizational culture typically requires in-depth ethnography of a single case study (Schein, 1992; Van Maanen, 1988). Deep analysis on the institutional level typically seeks to identify patterns among a large sample of organizations (Fligstein, 1990). A hybrid research strategy that straddles both domains must include a large sample inherent in institutional analyses and an in-depth organization-level perspective inherent in cultural analyses. One component of such a study could involve a survey analysis of a large size sample for generalization across large populations of the field.

Data collection could focus on a sample of firms that are facing similar institutional pressures. A survey could ask questions of managers among multiple departments to determine what drives environmental protection concerns and in what form they are framed, conceived, and acted on. In all survey analyses, however, answers must be tempered by the concern that the core measures of cultural and institutional influence are in the level of the taken-for-granted. They are generally more implicit than the actors know or wish to acknowledge. Therefore, managerial perceptions may or may not be able to pick up the full scope of institutional pressures. For example, the influence of banks, insurance companies, or investors may be less obvious to managerial action than the pressures of regulators or activists. Furthermore, survey analyses based on managers' interpretations of external pressures will naturally tend to uncover discrete network ties or resource connections and will be less likely to uncover sources of normative and cognitive influence that may emerge from religious institutions, academia, or the press. Uncovering this level of influence has traditionally been a difficulty within institutional analyses and has led many to identify network analyses as the most reliable way to empirically measure institutional phenomena.

To some extent, empirical limitations will require that a study of institutional influences on organizational action include considerations for direct network influences beyond sources of normative and cognitive influence (Scott, 1991). In effect, studies will, by nature, rely more on the regulative and normative influences of the institutional field and the artifactual responses that are manifested within the orga-

nization. To compensate for this deficiency, in-depth case studies of individual organizations could be useful in identifying deeper meanings in these variables.

CONCLUSION

The context of environmental protection is an excellent domain for studying the shifting form of institutional and cultural forms. The definition of corporate environmental practice has been highly contested over the past four decades and represents a high degree of field-level conflict and change. For example, M. Friedman (1970) wrote that "the social responsibility of business is to increase its profits," adding that

> expenditures on reducing pollution beyond the amount that is in the best interests of the corporation or that is required by law in order to contribute to the social objective of improving the environment . . . [is] pure and unadulterated socialism. . . . There is one and only one social responsibility of business; to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.

This article examines how the rules of the game have changed. It presents an institutional and cultural model for understanding how the meaning of increased profits and the actions that managers take for the benefit of their investors have become redefined. Managers acting in the best interests of their investors now consider environmental protection in cultural terms that merge with institutionally legitimate business concerns: capital acquisition, operational efficiency, market demand, and others. Institutional definitions of environmental protection have moved out of the realm of socially responsible management or regulatory compliance and have entered the realm of strategic business management.

This conclusion emerges from an institutional and cultural analysis. As yet, few institutional studies have been able to capture the full complexity of the interface between field and organization. This article has presented the beginnings of a model that will consider this linkage in more richness. It proposes the coevolution of linked systems: the institutional field, the cultural frames employed to describe environmental issues, and the cultural and structural organizational response. Our task as researchers is to develop models that capture the sources of these cultural influences and understand how they affect organizational structure, culture, and practice.

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