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Versus the Environment

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Economics versus the Environment**

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The Institutional Framing of Policy Debates: Economics versus the Environment

ABSTRACT

By framing the economics versus environment debate as a mixed-motive situation, opportunities become visible which allow greater benefits to all interests in the debate. Yet, social, cultural and institutional arrangements frame how we see these opportunities, creating a barrier to mixed-motive analyses. In this paper, we will use an institutional perspective to analyze how the economics versus environment debate emerges from institutions as presently structured. We will present an analysis of its present framing based on three aspects of institutions — regulative, normative and cognitive — and consider the prescriptive implications they expose at the managerial and organizational level of action. We conclude with an analysis of possible solutions to overcome them.

“There is some very good news about the climate problem: we do not need to worry about how the climate science turns out or whether this is a real problem or not...because we ought to do the same things about it anyway just to save money...The obstacles to achieving this profitable resolution are not technological or economic. Rather, they are cultural and procedural... Obsolete rules-of-thumb used throughout engineering practice are typically wrong by half to one order of magnitude compared with whole system life-cycle optimization, because they’re optimizing a little piece of the system and therefore pessimizing the whole system. Most of our building design is “infectious repetitis,” not real engineering or architecture at all – partly because architects and engineers are rewarded for what they spend, not for what they save. Similarly our utilities, in almost every jurisdiction, are rewarded for selling more energy and penalized for cutting your bill. We have split incentives between builders and buyers of equipment or buildings, and between landlords and tenants.” (Lovins, 1997: 146, 195).

INTRODUCTION

Policies work as theories: they comprise implicit accounts of both the cause and the solution to issues of collective concern (Majone, 1981) and so, can enable us to understand the working assumptions of the system that generated the policy. Policy debates, on the other hand, are grounded in the interplay of the interests and institutional context of their formation (March & Olson, 1984). Lovins (above) reminds us that the form of the debate over environmental issues such as climate change is determined by who is engaged in that debate, what interests they invoke in forming it, and how these shift and evolve across time. Lovins’ insight is to recognize the possibilities of better outcomes, by looking beyond conventional practice and ideology; our challenge is to imagine how this can be accomplished.

In this paper, we draw from recent theory and empirical research in studies of organizational fields, policy cultures, and institutional change to develop an understanding of how policy debates take a particular shape — which actors are engaged, what kinds of problems are debated, how those problems are defined, and what kinds of solutions are considered appropriate (Espeland, 1998). We will develop theories of institutions to explain policy debates

as struggles between competing frames of meaning, embodied within competing interests and identities. Where other chapters in this issue develop mechanisms at the level of the individual, we direct our attention at debate and activity at the level of the field, incorporating cultural analysis to what might otherwise seem like problems of individual biases, information asymmetries, political manipulation and strategic avoidance.

Our institutional and cultural analysis provides a multi-level diagnosis of the institutional barriers that confront academics, policy-makers, business executives, and activists who want to participate in social issue debates, such as that between economics and the environment (Hoffman, Gillespie, Moore, Wade-Benzoni, Thompson & Bazerman, 1999). We will elaborate how institutions structure policy debates with consequences for their initial framing and the practical work of finding and implementing integrative solutions. While we note the conventional attention to institutions as sources of constraint and inertia, we also focus on emerging conceptions of institutional elements that support change within the context of the debate. As such, we will apply our theories to analyzing specific empirical examples of institutional barriers to the reconfiguration of the economics versus environment debate and present an assessment of conceptual and practical mechanisms to overcome them.

AN INSTITUTIONAL FRAMEWORK FOR THE ECONOMICS VERSUS ENVIRONMENT DEBATE

Annual costs for pollution control in the US rose from \$27 billion in 1972 to more than \$90 billion in 1990, and are projected to reach \$155 billion by the year 2000 (Pendleton, 1992). The impact of such expenditures on economic competitiveness is clear. Or is it? There is little

disagreement that environmentalism affects corporate management, altering profit and loss statements and influencing both domestic and international strategy. Yet, while many within industry and government are vilifying environmentalism as a threat to economic growth, others are taking advantage of the economic opportunities it can reveal. The Carrier Corporation invested \$500,000 to eliminate the use of toxic solvents in the manufacture of air conditioners. By the end of one year, it had recouped \$1.2 million in reduced manufacturing costs (*Wall Street Journal*, 1990). DuPont undertook a \$500 million capital improvement plan at three North and South Carolina plants, which will reduce air emissions by 60 percent and increase production by 20 percent (*Engineering News Record*, 1991).

Why do some see a synergy between economic and environmental objectives while others see only a threat? Is the relationship between economics and the environment inherently win-win, win-lose or mixed motive (Hoffman et al., 1999)? Recent work on organizations and the environment might approach these questions with a focus on the strategic actions of individual firms (e.g. Lawrence & Morell, 1995; Shrivastava, 1995; Lober, 1996). For example, Hart (1995: 986) advances a “theory of competitive advantage based upon the firm’s relationship to the natural environment.” Porter and van der Linde (1995: 114) argue that “companies must start to recognize the environment as a competitive opportunity.” These lines of work are important for their emphasis on the interaction of organizational decision-making with the natural environment.

However, they are incomplete to the degree that they neglect the cultural and institutional contexts in which such decisions are made. Firms are not autonomous units, able to develop and implement strategy in isolation from the influence of the external environment. Indeed,

institutional arrangements and social processes are central to the formulation of both individual and organizational action (Orrù, Biggart & Hamilton, 1991). Organizations, and managers within them cannot choose from an unlimited range of possible strategies. Rather, they choose among a narrowly defined set of legitimate options. These options are bound by institutions. Institutional theory asks questions about how these social choices are shaped, mediated and channeled by the external (institutional) environment.

So, in addressing the question of whether the relationship between economics and the environment is inherently win-win, win-lose or mixed-motive (Hoffman et al., 1999), we focus on the institutional basis for the question's initial framing. How are wins and losses defined? Who defines them? If trade-offs between economic and environmental interests are necessary to uncover mixed-motive solutions, whose economic and environmental interests are legitimate in this equation? In essence, the questions to which the institutional perspective directs us are: Why is the economics versus environment debate framed as it is? And, who is influential in framing it? With the answers to these questions, we can begin to deconstruct the debate and reconstruct solutions to it. To organize our analysis, we will explain (1) institutions in general, (2) a three aspect structure for understanding them and (3) an explanation for how these three aspects can help us understand both inertia and change.

Institutions

Institutions (Scott, 1995) are central in the basic framing of the environment and economics relationship. They present cultural and contextual constraints which alter individual and organizational perspectives on the issue. They contribute to the authorization and definition

of the structural elements — actors and meanings — in the policy field around which the issue is debated. In this way, the entire debate as well as the form of its solutions are based, not within the strategic, technological or economic arena, but within the social, cultural and institutional arena (Bazerman & Hoffman, 1999). While strategic, technological and economic activity may be the direct cause of or solution to environmentally destructive behavior, it is the cultural norms and societal institutions out of which that activity emerges that are important (David, 1985; Barley, 1986; Smith & Marx, 1994). The institutional approach directs us to consider the interplay of varied organizational actors, and the contending institutional logics, authority structures, and conflicts that occur among them to understand the shape of the policy debates (Ventresca & Washington, 1998).

Institutional influences devolve from a field of actors and comprise symbolic elements, networks, technology, material resources, and historical remnants of prior practice and decisions (Scott, 1983). In fact, the mixed-motive framework on which the intellectual imagery of this volume is grounded explicates the fact that normatively rational action is complicated by social and cultural processes. The very nature of the apparent tradeoffs or mixture of motives in the mixed-motive framework is an outcome of institutionally robust processes. Conceptions of the value of nature, the responsibility of the corporation toward protecting it and, the economic costs associated with such efforts are all mediated by social, cultural and institutional context. While the mixed-motive framework presents strong arguments for the possibility of finding optimal outcomes in policy debates through a process of clarifying interests, incorporating information, and treating decisional outcomes as modular (in ways that unbundle and rebundle preferences in order to find agreeable and stable solutions), it is the institutions that provide sources of stability

and meaning in each of these action steps (Scott, 1995).

Three Aspects of Institutions

Scott (1995) distills theory and empirical research on institutions into three foundational pillars: regulative, normative, and cognitive aspects. Regulative aspects of institutions are based upon legal sanction to which organizations accede for reasons of expedience. Normative aspects of institutions are morally grounded, to which organizations will comply based on social obligation. Cognitive aspects of institutions reference the collective constructions of social reality via language, meaning systems, and other rules of classification embodied in public activity. We note that cognitive aspects are not limited to individuals; rather they recognize the role of social classification and cognitive as elements of everyday social reality. It is this aspect that emphasizes the taken-for-granted beliefs to which the organization will attend out of habit, convention, or obligatory action (Zucker, 1983).

We follow theorists (Scott, 1995) and other commentators (Hirsch, 1997) in treating the three aspects of institutions as analytically distinct while practically and operationally intertwined in practical activity. But we wish to elaborate a key insight that institutions comprise all three aspects, in differing mixes and with diverse implications for change processes (Greenwood & Hinings, 1996). For example, regulative institutions are often described as embodied within regulations, protests, lawsuits, political lobbying and stakeholder negotiation; and normative institutions are described as emerging through universities, professional training institutions and trade associations and manifested in occupational standards, educational curricula and membership requirements. We see each of these institutional arenas as possessing

elements of all three institutional aspects. For example, while government regulations may form a visible embodiment of the regulative aspects of institutions, they are actually supported by normative and cognitive aspects that form the basis and philosophy behind their purpose and meaning.

Institutional Inertia and Change

The power of the three institutional aspects is in explaining how institutions first restrain and second change organizational activity. The notion that institutions act as “constraints” rests on the view that existing policies and institutions confine the ability of actors to respond to and solve their problems once they have been articulated. The three aspects help to delineate mechanisms by which this occurs. More contemporary institutionalist arguments focus on the source of that articulation, exploring how actors define political and economic problems that confront them and the policy and institutional solutions available to them (Campbell, 1998). Institutional context provides “rationalized building blocks” (Meyer & Rowan, 1977) — modules of social reality available for assembly into organizational forms and structures. Institutional rules form prescriptions about how society works or should work and define the meaning and identity of the patterns of appropriate economic, political, and cultural activity (Meyer, Boli, & Thomas, 1987). This claim emphasizes the generative aspects of institutions — how authoritative social rules do not simply describe but actively generate and confirm social and economic realities. The three aspects help to delineate the forms of this generation process, whether through coercion, education or connection to accepted beliefs. In short, institutional context provides cultural elements for the formation and reproduction of the central structures

and actions of organizational actors. As such, institutional processes become central in constituting and constraining the elements of economic action.

This view of institutional processes reshapes the questions we ask about how institutions change in the environment and economics debate. What is distinctive about the evolution of policy, regulation, and organizational strategy is the dramatic redefinition of the linkages between environmental and economic goals (Hoffman, 1997). We provide here a framework within which to understand how policy regimes and fields of activity can be reconstructed. The three aspects become the basis for understanding how efforts to solve the policy dilemma can follow two possible paths.

First, change efforts can focus on pragmatic action that works *within* the existing framework of the debate as given. In this way, competing interests are reframed in terms consistent with those interests that dominate. For example, in the economics versus environment debate, environmental issues can be reframed to fit within the dominant economic framework of the social and political system. They can be reconstructed as an economic opportunity, such that a merge of interests reduces tension in the debate and exposes mixed-motive opportunities for conflict resolution. Second, change efforts can focus on efforts to *restructure* the existing framework and thereby identify entirely new possibilities for action. In this way, existing institutions are exposed and restructured to support a new set of beliefs and actions. In either case, institutional approaches remind us of the several analytic levels that interact to frame and reinforce current definitions of “what’s at stake.” Further, the three aspects expose where leverage points exist for creating change (Hoffman, 1999a).

THE INSTITUTIONAL FRAMING OF THE ECONOMICS VERSUS ENVIRONMENT DEBATE

“...every past generation has had to disentrall itself from an inheritance of truisms and stereotypes...For the great enemy of the truth is very often not the lie — deliberate, contrived, and dishonest — but the myth — persistent, persuasive, and unrealistic...We subject all facts to a prefabricated set of interpretations.” (John F. Kennedy, 1962).

As Kennedy points out, institutions form enduring truisms, stereotypes, clichés, and myths which give shape to policy debates and create perceptions of social and economic reality that are ambiguous, negotiated, and contested. As such, they can act as restrictions by keeping policy discussions anchored in assumptions and models that work against integrative problem solving. In this section, we consider how some of those barriers have taken shape. While not an exhaustive list, we will explore the institutional constraints embedded within four empirical arenas: environmental standards, educational curricula, engineering and operational practice, and international regimes. Whether we are discussing these areas or one of the many other institutional elements that shape the present configuration of the environment versus economics debate, we argue that each can be analyzed in terms of the regulative, normative and cognitive aspects that ground its specific standards and criteria, key assumptions, and underlying beliefs (Scott, 1995). In each case, we will illustrate mechanisms by which institutional processes contribute to the social definition of the apparent trade-off in the policy debate.

Environmental Standards.

Standards form the most apparent source of pressure for organizational action in environmental protection. Regulatory pressure is seen as coercive in nature, forcing compliance

by threat of penalty. But standards are also symbolic, uncertain, contested and constitutive. Courts frequently measure compliance against “industry standards,” “business necessity” or “the limits of current technology.” While we can consider standards in terms of their regulative aspects, we must also consider how they are supported by contending logics and project symbolic activity (Powell, 1996). Edelman (1990), for example, shows how abstract legal mandates are typically enacted in organizational practices via mechanisms of translation and adaptation based on these supporting normative and cognitive institutions.

The present regulatory structure in the US is founded on fundamental beliefs about the nature of pollution and the appropriate methods for eliminating it. Dating from the formative days of the Environmental Protection Agency in 1970, these beliefs, values, and practices contribute to a stable policy paradigm. Three components of this regulatory culture are particularly important for our discussion.

First, the regulatory structure is based on a perception of environmental issues as compartmentalized by media — air, water, pesticides, radiation, solid waste, etc. While obviously inaccurate as a framework for understanding the inherently trans-media nature of pollution, this conception is perpetuated by a formal organizational structure within the Environmental Protection Agency (EPA) that is an artifact of its early formation. While many advisors to the agency’s first administrator recommended an “intermedium” approach which would have regulated an industrial facility as a unit, considering the impact of its operations on the environment as a whole, political realities forced the creation of the new agency through the consolidation of the existing departments scattered through the federal government. These departments were based on media specific mandates, so the resultant agency was similar

structured. But, this structure institutionalized a framework that inhibits creative environmental problem solving by focusing on partial solutions.

A second aspect of the regulatory structure that institutionalizes a particular conception of environmental issues is its “command-and-control” format. Many in 1970 felt that once government set standards and began to enforce them, industry would fall in line and the environmental problem would essentially disappear (US Environmental Protection Agency, 1993). During the first 60 days, EPA brought five times as many enforcement actions as the agencies it inherited had brought during any similar period (Landy, Roberts, & Thomas, 1990). This focus on punishing polluters was justified on political grounds to establish credibility, but it also set the adversarial type of industry/government relationship that carries over to today. This adversarial relationship supports a belief that government regulators and industry decision-makers cannot find solutions that offer mutual gain.

Finally, a third aspect of the original EPA that forms our institutionalized beliefs about the relationship between economics and the environment is the focus on the technological-fix solution to environmental problems. Since the 1970s, regulations have been based on prescribed, technology-based standards. The catch word for the early 1970s was “technology-forcing,” where new federal rules would force industry to use new pollution free technology and, as new plants replaced old, eventually the problem of pollution was expected to disappear (Novick, 1986). Today, that mindset is manifested in regulations that prescribe “best demonstrated available technology” (BDAT) for specific environmental problems across disparate industries.

Over time, this (a) media segmented, (b) command-and-control, (c) adversarial, (d)

technology based approach to environmental regulation came to provide a standard approach to understanding the nature of environmental issues, regulatory solutions, and the “inherent” policy trade-offs among government, industry and activist communities. These are the regulative and normative aspects of the institutions of environmental standards. Many now view this paradigm as out of date and overly restrictive of corporate environmental initiatives beyond compliance (Schmitt, 1994). But to change them will require alterations in their cognitive aspects.

While government standards have historically produced results consistent with broad environmental objectives (Easterbrook, 1995), some are beginning to argue that the existing standard and enforcement programs may be the biggest challenge faced by environmentalists today. While they can force behaviors that are easily monitored by oversight agencies, they perpetuate perceptions about the relationship between economics and the environment that may be contrary to the goals of both. They are based on cognitive institutions which perpetuate the view that economic and environmental interests are mutually exclusive.

Tenbrunsel and colleagues (1997) argue that legal standards lock organizations into a focus on strict legal compliance rather than the attainment of environmental goals or more subtle societal interests. They suggest that decision makers may evaluate sub-optimal choices (both economically and environmentally) that adhere to a standard more highly than optimal choices that violate the standard. Once standards are written, program managers within both government and corporations become constrained by a compliance mindset and bureaucratic procedures, which attenuate the search for creative solutions to complex environmental problems. Standards direct attention and embody a theory of cause, effect, and solution which is often received as accepted wisdom. A given rule structure dictates which pollutants and sources to control, to

what extent, and with which technologies across a broad spectrum of disassociated industries. It often ignores the technological and logistical issues associated with overlapping regulatory programs as well as the multi-media and multi-objective impacts of a particular rule of policy (Raffle & Mitchell, 1993). At times, standards can explicitly restrict environmentally optimal solutions. For example, the permitting requirements under the Resource Conservation and Recovery Act (RCRA) often restrict hazardous waste recycling initiatives by strictly imposing regulation on those wastes once created. Any company that creates hazardous wastes and then attempts to recycle or reuse them will be required to obtain a hazardous waste “Part B” permit for treatment of a hazardous waste, an extremely expensive and time consuming process (Byers, 1991). In the eyes of many corporate managers, such as Thomas Zosel, manager of 3M’s 3P program, “RCRA permits are so extensive and expensive to develop that many companies forego recycling to cut all the regulatory hassle required by RCRA” (Ember, 1991).

Tenbrunsel et al. (1997) also suggest a motivational explanation for the “misdirected attention” effect, namely that standard-based systems can change the incentive systems for individuals and promote self-interested behavior at odds with wider societal interests (Tenbrunsel et al., 1997). Sub-optimal outcomes are the product of both unintentional and intentional actions on the part of a decision maker, within the context that frames incentives and defines options. Unintentional actions may result from individuals “just following the rules,” creativity not being rewarded, a “use it or lose it” rationale, intrinsic motivation being replaced with extrinsic motivation, or a “no law against it” mentality. Intentional actions include trying to “beat the system.” For example, the EPA listed n-methyl pyrrolidone (NMP) in 1995 as one of the chemicals for which industry must report emissions. NMP is a common replacement in the

adhesives industry for chlorinated solvents. It is non-flammable, practically non-volatile, and 80-90% recyclable. The listing was prompted by a single study citing a potentially remote health effect. Many companies decided to revert back to flammable and volatile (but non-reportable) solvents in order to avoid the reporting burden of NMP. The end result of the NMP listing requirement was a reversion to a less safe and potentially more environmentally harmful option.

As we noted earlier, standards are supported by contending logics and project symbolic activity. To alter the meaning behind environmental standards and the tensions that exist between such mandates and the organizational processes (Edelman, 1990; Mezas, 1995), we must change the normative and cognitive institutions upon which they are based. In essence, a standard is an artifact of the wider regulatory cultures, structures, and traditions from which it originates. But existing cognitive aspects of such standards are anchored in the constellation of beliefs, organizational routines, policies and practices that have accumulated over thirty years of organizational and programmatic routines and have defined the nature of environmental problems and the form of their solution. Breaking down such structures will require attention to their regulative aspects which are influenced by direct political control, but also their cognitive aspects which perpetuate a practical conception of the nature of environmental problems that counterpose environmental sense to economic competitiveness.

Educational Curricula.

The content of educational curricula, professional association strategies, and industry standards and best practices also provides a basis for institutionally-grounded inertia in policy dialogues. And, where education and training are often compared to the normative aspects of

institutions, their full effect on the economics versus environment debate must also consider the deeper meaning embedded in their cognitive aspects. Looking first at the most explicit level of programmatic training programs, one can see institutionalized notions of environmental problems.

For example, undergraduate chemical engineering education often overlooks waste considerations in the economic calculations of chemical plant design. Marked as an arrow aiming off the page and labeled “to waste” students are systematically taught to ignore their associated costs and opportunities to reduce them at the source. Business management education treats environmental issues as an issue of “socially responsible business” and outside the rubric of core decision-making logic (Hoffman, 1999b). A survey of US business schools found that “only 16 percent of schools report integrating environment into core or departmental requirements, thus only a few MBAs truly receive environment-business training” (Finlay, Bunch & Neubert, 1998: 2). And finally, economic education treats environmental protection as an “externality” from the market (Cropper & Oates, 1992), the consequence of an absence of prices for certain scarce environmental resources, such as clean air and water.

These are the regulative and normative aspects of institutions within this social arena. But educational curricula transcend such normative rules and procedures, being built on culturally supported beliefs about the nature of professional life and the place of the environment within it. Through each of the educational curricula described above, economic and environmental interests are conceived as separate and distinct. In such a framework, the potential for innovative mixed-motive agreements are not possible. The cognitive aspects of these institutions support the idea that market and engineering objectives are inconsistent with

environmental protection and that decision-makers will never find it in their own economic interests to incorporate environmentally sensible policies.

Historians and environmental management experts (Merchant, 1980; Gladwin, Freeman & Kennelly, 1994; Allenby, 1998) now argue that the contemporary ideologies of educational training (and capitalism more broadly) rest on fundamental cognitive assumptions that perpetuate a disconnect between environmental and economic sustainability. In the pursuit of economic progress, organizations and individuals are depicted as independent actors, bartering and trucking in a market without social structure, where resource extraction and development are the right of the property-owner to the exclusion of other stakeholder interests and unlimited progress is possible through the exploitation of nature's infinite resources. Scholars in the environmental management community challenge present management theory and practice for supporting these beliefs by promoting an uncritical belief in: (a) the necessity of increasing economic growth; (b) the perception of nature as a limitless sink; (c) the superiority of technological development for controlling natural systems; (d) the social and physical autonomy of the firm; and (e) the profit-motive as a singular objective of the firm (Capra, 1982; Daly, 1991; Daly & Cobb, 1994; Gladwin, Kennelly & Krause, 1995). These cognitive aspects of educational curricula lie at the center of notions about what is the role of the business manager and the engineer in interacting with the environment and what is the role of the academy in training them for that role.

Engineering and Operational Practice.

Engineering and operational practice also bear on the form of the debate over the

relationship between economics and the environment. These can be the product of environmental standards or educational curricula, but they can also be perpetuated through regulative and normative institutions embedded within specialized units, habits, routines, and technical practices within organizations. These structural elements of individual organizations are representative of cognitive aspects of institutions which support a divisionalization of “environmental” and “economic” responsibilities within the framework of organizational decision-making. Over the past twenty-five years, corporations have developed specialized environmental, health and safety departments to handle the command-and-control system of environmental regulation. Through force of habit, tradition and power, this separation of responsibilities has created a cultural and institutional schism among business units and objectives within the corporation (Shelton & Shopley, 1995) and the wider debate over their relationship. The two cultures are divided by objectives, language and external constituencies. For example, environmental managers are responsible to government regulators and often support their initiatives with non-business acronyms such as notice of deficiency (NOD), environmental impact statement (EIS), biological oxygen demand (BOD), and life cycle assessment (LCA) which may be familiar with this external constituency but serve to distance other business managers from environmental matters (Shelton & Shopley, 1995). These other business managers are focused on customers and shareholders and use terms such as return on investment (ROI), net present value (NPV) and return on assets (ROA) to justify their initiatives. While these metrics remain the most common business validation metric, most environmental managers do not acknowledge such economic cost-benefit analyses when attempting to gain budgetary approval for environmental initiatives.

Operations personnel are not the only organizational tier at which institutionalized beliefs about the relationship between economics and the environment are perpetuated. In a survey of corporate managers about the primary obstacles to industrial expenditures on environmental programs, many placed the accounting department at the top of the list (Hoffman, 1992). Environmental protection costs are generally listed as a liability and not an asset on balance sheets, even if the expenditure resulted in decreased compliance and disposal costs, or savings in other areas such as improved public relations, or liability and regulatory reduction. Further, individual managers are often shielded from incentives to seek more efficient solutions to environmental problems as environmental costs are lumped together as overhead costs, not for the department but for the corporation.

Institutionally maintained norms and rules in the form of standard operating procedures, best engineering practice or established rules of thumb support deeper assumptions about the relationship between economics and the environment. Accepted financial objectives are often based on cognitive assumptions that undervalue environmental resources, discount the future and uncritically favor economic over environmental objectives (Schmidheiny, 1996). For example, return on investment criteria must support the debt-load expected by lending institutions and corporate investors. But financial markets have payback horizons that are not in sync with the long term time horizons of ecological systems. For forestry companies, such economic pressures will lead them to diminish the natural capital asset base upon which their long term success is based, harvesting timber at rates that exceed maximum sustainable yield (MSY). The short term economic interests of financial markets take precedent over long term environmental cycles.

The Gross Domestic Product (GDP) is the foremost economic indicator of national

economic progress. It is a measure of all financial transactions for products and services, but it does not acknowledge (nor value) a distinction between those transactions that add to the well-being of a country and those which actually diminish it. This creates perverse economic signals that promote short-sighted economic activity at the expense of environmental objectives (Redefining Progress, 1996). For example, GDP treats the depletion of natural capital as income, rather than the depreciation of a capital asset. The more a nation depletes its natural capital base and with it, its ability to produce income in the future the more its GDP will go up. GDP treats natural disasters as economic gain. Hurricane Andrew, for example, was a disaster for Southern Florida, but GDP recorded it as a \$15 billion boost for the economy due to recovery programs. Finally, GDP increases with polluting activities and then again with pollution clean-up (Redefining Progress, 1996). For example, through the century, economic activity and GDP have increased through the low cost and inappropriate disposal of hazardous wastes. Now, under the aegis of the Superfund program, it is estimated to cost \$750 billion to clean them up (Russell, Colglazier & Tonn, 1992) which will again be added to GDP. As a result, pollution becomes a double benefit for the economy and the true relationship between economics and the environment becomes clouded.

Any attempts to seek alternative solutions within the business organization, such as integrative negotiated agreements, may represent a challenge to these taken-for-granted beliefs of business and engineering practice. Integrative solutions require a joint problem solving effort that relaxes the organizational structure and allows interaction among different functions (Hoffman, 1996). Yet, the functional differentiation of organizational responsibilities may preclude such opportunities. And, even if structural boundaries were broken down, the cognitive

perception that economic and environmental objectives are separate and distinct would be perpetuated within measures of performance, process criteria, and outcomes used to assess corporate health and success (Meyer, 1994; Rao, 1998).

International Regimes.

Standards, educational content, and operational practices come together in policy regimes that define the terms and content of competition. These are held within individual and collective beliefs; reinforced by normative activity; and embedded in regulatory culture and practices. Current environmental issues and policy often cannot be considered outside the context of the global commons. And, where the global commons is concerned, international regimes must be engaged. Recent studies of the dynamics shaping the global environmental sector stress the twin factors of increased international organization and global dialogue (Meyer, Frank, Schofer & Hironaka, 1997) in driving the passage of environmental treaties and other regulatory frameworks (Frank, 1997). However, in this arena more than any other, the institutionalized separation of environmental and economic interests may be the most pronounced. International standards are often established with a clear set of underlying assumptions that place economic growth and environmental protection in separate domains with compatible solutions ruled out.

For example, international accords on fishing fail to protect the world's rapidly depleting fisheries due to short-sighted economic priorities. Ninety percent of the world's fish catch is taken from coastal waters (Nickerson, 1994) and is, therefore, under some form of government control. But, because governments have invested heavily in protecting domestic fishing industries, subsidies distort economic signals of decline. In 1994, it cost \$92 billion world-wide

to pull in \$70 billion worth of fish (Nickerson, 1994). The magnitude of this dysfunctional behavior worsens if you include the inefficiency and waste created from “by-catch.” The FAO estimates that 27 million tons of fish per year — about 33 percent of the total catch — were discarded dead from fishing boats because they were too small, the wrong species or out of season (Sissenwine, 1995). In 1996, fifteen percent of the yearly take from the Bering Strait off the Alaskan coast was by-catch. This amount of fish equaled 50 million meals, enough to treat everyone in the states of California and New York to a fish fry (*Economist*, 1996).

While there are several international trade agreements that have environmental implications, GATT is by far the oldest and most far reaching. GATT also illustrates how institutions perpetuate a separation of environmental and economic interests. The Global Agreement on Tariffs and Trade (GATT) was created as a branch of the United Nations after World War II. It is both the framework and governing institution over most international trade. (In 1995, GATT was replaced by the World Trade Organization, or WTO.) WTO’s central premise in establishing fair and free trade is that of “non-discrimination.” But, the environmental implications of this agreement were tested in 1991 with a dispute over dolphin-free tuna. The US Department of Commerce imposed an embargo on tuna from Mexico, Venezuela, Vanuatu and other countries because the by-catch of dolphins killed in the process of harvesting the tuna violated the Marine Mammal Protection Act (MMPA) of 1972. Mexico complained to the WTO and won relief. The adjudicating panel decided that the MMPA was inconsistent with the non-discrimination principle. A country had no right to enforce process restrictions on other countries when those processes have no impact on the product itself (*Economist*, 1992). When the WTO again ruled in 1998 that the United States could not ban the

import of shrimp from countries that do not protect endangered sea turtles from deadly entrapment in fishing nets (a domestic US requirement), conservation groups pressed the Clinton Administration to defy the decision, arguing that the WTO was subverting domestic environmental policy (Cushman, 1998).

Environmental NGOs feel that the underlying logic of these WTO decisions is that economic trade is paramount to environmental protection. As a result, they feel that WTO decision-making is based on institutions which challenge national sovereignty in developing domestic environmental standards. They fear that pressure from foreign countries (supported by domestically disadvantaged companies) will create pressures to drive domestic environmental standards down to the lowest common denominator. Hard won domestic environmental victories may be lost in the name of international trade equity. Underlying this possible outcome is the institutionalized notion that trade interests will rule out any attempt at balancing environmental objectives and commercial objective (Ferrantino, 1994).

STRATEGIES FOR OVER-COMING INSTITUTIONAL BARRIERS

Much current prescriptions for addressing the current trade-offs of the economics and environment debate focus on “changing mindsets” — individual, organizational, and other (Porter & van der Linde, 1995). In the institutional perspective we develop in this article, “mindsets” are the outcomes of policy arenas, organizational and professional learning, technical expertise, international regimes and everyday routines and practices. They are durable and embedded in both individual and collective beliefs and supported by “myths”

and other rationales that reflect the “common sense” of often quite disparate constituencies: government officials, industry managers, accounting and engineering professions, environmentalists, and the general public.

In 1995, nearly three quarters of Americans described themselves as being environmentalists. Sixty-nine percent also believed that environmental protection and economic development could go hand-in-hand (Times Mirror, 1995). While such statistics have little bearing on the ease with which we can adjust our behaviors to accommodate such espoused beliefs, they represent a key paradox that makes the institutional perspective on the economics versus environment debate such a challenge. The “beliefs” of the American public, while having little connection to the technical possibilities related to the issue, represent an important consideration in determining the “reality” of the issue. They represent a change in one aspect of the institutional structure that defines the relationship between economics and the environment and therefore represent an important component in the definition of its overall form. But, institutions are sedimented, multi-level, and durable assemblies. For these reasons, efforts at institutional change must also incorporate strategies that address all aspects of institutions — regulative, normative, and cognitive — and work on multiple levels.

In this section, we will elaborate on two fundamental strategies for overcoming institutional barriers and driving change. First, strategies may work within the present framework of the debate. Second, they may focus on reconfiguring the form and nature of the debate. This distinction can be seen in strategies of various segments of environmental community. For example, the Nature Conservancy seeks to protect the environment by

collecting donations from corporate sponsors and purchasing ecosystems for their protection. Earth-First uses eco-sabotage (among other strategies) to achieve its goal of zero economic and population growth. The former works within the existing institutional framework. The latter works to change it.

Applying our institutional framework for understanding this distinction, strategies toward reshaping current institutional inertia in the framing of policy issues must involve the provision of new norms, models for practice, and underlying expertise that defines the problem, its possible solutions, and appropriate interventions. The tools and skills are those developed by recent theories of leadership, change, and management (Eccles & Nohria, 1992) and directed at activity within organizational fields of activity and actors. The mechanisms are based on the regulative, normative and cognitive aspects of institutions. Debate about which aspects of institutions are “more or most” amenable to change or contestability (DiMaggio & Powell, 1991: 8) must be balanced with an insight from our framework that recognizes the inter-relatedness and reinforcing features of the three aspects operating together.

Both change efforts within the existing framework and efforts to restructure the form of the debate must focus efforts at deliberate alterations in the regulative and normative aspects of institutions, as these are “the products of human design, [and] the outcomes of purposive action by instrumentally oriented individuals” (DiMaggio & Powell, 1991: 8). They are therefore open to manipulation and change. However, the alteration of cognitive institutions is beyond direct individual control. Their influence is not always readily perceptible, are considered “taken-for-granted” and are generally more implicit than the

actors know or wish to acknowledge.

Our approach treats “taken for granted” as a stable and (time-dependent) claim about a dominant logic or model. But there is seldom a situation where only one cognitive institution prevails — though certainly many where one dominates or has primacy (Hoffman, 1999a). This of course, recognizes the political and cultural nature of such claims to dominance, and underscores the value of identifying contender models or claims even if they are currently on the margins of the policy dialogue. Recognizing this, strategies at the level of cognitive institutions involve identifying and supporting alternative models, mobilizing competing frames by borrowing or analogy (Leblebici, Salancik, Copay & King, 1991) to redefine the terms of the debate, and creating options.

With this distinction, the temporal implications of the two strategies now become clear. Change within the system will meet with short term results, the result of tinkering around the edges of the regulative and normative aspects of institutions. Restructuring of the overall system will require long-time horizons to complete, involving more radical challenges to the regulative and normative aspects with the intention of altering beliefs in the cognitive aspects. We will consider each strategy in turn.

Strategies within the Present Framing of the Debate

The first strategy is to incorporate environmental considerations into the existing market, social, economic and political institutions that predominate organizational and individual interaction. This strategy shares features of standard conflict resolution routines, from behavioral to attitudinal interventions. It involves reformulating environmental and

economic debates into a common language and rhetoric, by reframing environmental issues into terms and models that fit within the existing context. It requires alterations in the regulative and normative aspects of institutional structures in a way that does not challenge or undermine the cognitive aspects in place.

For example, environmental regulation could be restructured to trigger corporate environmental action through generally accepted economic means, such as the introduction of surrogate or artificial prices in the form of unit taxes, effluent fees, or, more recently, market incentives to provide the needed signals to economize on the use of these resources (Hahn & Stavins, 1991). Universities could connect educational programs and environmental issues in terms that compliment existing educational curricula. So, for example, management schools could inject environmental issues into the management curriculum by teaching it in the language of core business disciplines such as strategy, finance, marketing, accounting and organizational behavior (Hoffman, 1999b). It is a strategy based on integration of environmental interests into the business program in such a way that it does not challenge the basic precepts of corporate objectives and responsibilities.

Within the corporation, environmental managers could be trained to frame environmental management as a business issue that complements the overall business strategy (GEMI, 1999). Traditional business terms such as ROI and NPV could be adopted to sell the costs and benefits of environmental initiatives to business management (Shelton & Shopley, 1995). This will trigger organizational initiatives that seek environmental initiatives that can be shown to satisfy economic objectives. Finally, international regimes

can be amended such that environmental interest could be introduced as compatible and supportive of pre-existing goals of economic growth and increased world trade.

Strategies for Reconfiguring the Form of the Debate

Instead of integrating environmental considerations into the existing institutional framework, a second strategy is to reconfigure that framework and the form of the debate. This strategy would also involve an alteration of regulative and normative institutions but, unlike the previous strategy, would be conducted with an intention of challenging and undermining the existing cognitive aspects upon which they are supported.

This strategy is based on a notion that the integration of environmentalism into present day social and economic structures does not fundamentally change the cause of environmental problems and therefore will not alter their ultimate outcome (Schnaiberg, 1980; Gladwin et al., 1994). Proponents of this notion argue that the environment should not remain external to the economy, internalized through the application of norms and rules based principally on human utility and not ecological stability (Evernden, 1985). Instead, they argue that environmental issues signal problems for the sustainability of society's institutions and must therefore be interpreted as a signal to change and challenge them.

For example, changes in environmental policy could reconfigure the role and objectives of both oversight agencies and the regulated community. Such reconfiguration could allow flexibility and autonomy for corporations to define which emission sources to control through site-specific compliance strategies that achieve broadly defined objectives (Schmitt, 1994). Environmental policy could also focus on the secondary effects of regulatory programs,

stimulating both direct and indirect pressures by changing core business networks, such as financial markets, international regimes and consumer demands. Such programmatic changes could trigger new types of organizational responses and eliminate competing institutional pressures from multiple constituencies (Hoffman, 1997). But, they will also challenge cognitive aspects of policy, necessitating new forms of relationships and responsibilities between the regulators and the regulated community that break down accepted notions of command-and-control, media based, technology forcing and adversarial based regulation.

Educational curricula in science, politics and business could be redefined such that humans are no longer accorded separate status and a superiority to nature, which itself would no longer be viewed as inert, infinitely divisible and moved by external rather than internal forces (Gladwin et al., 1995). Business management (education and practice) could be redefined in a way that treats the firm as socially and physically connected to the ecosystem and other societies; the profit-motive could be redefined as just one of many prime objectives of the firm, and; economic growth could be redefined to include concerns for information intensiveness, community consciousness and the experiential quality of economic activity, rather than merely its material-energy intensiveness (Daly, 1991; Daly & Cobb, 1994; Gladwin et al., 1994). And finally, international regimes could be restructured in such a way that supplants the imperative for global free trade with the economic and environmental sustainability of world communities (Rodrik, 1997; Soros, 1998).

Opportunities and Limitations

The reduction of institutional barriers involves the unlearning of what has been ingrained

over history and embedded into structures, policies, metrics, rhetoric and practice. In the past thirty-five years, a conception of the incompatibility of environmental and economic interests has been constructed into the institutions of social structure including environmental policy, educational curricula, operational practice and international regimes. Integrative environmental solutions will be difficult to as long as these institutional frameworks prevail. However, breaking the established routines that these institutions perpetuate will invite resistance through habitual inertia, threats to established power bases or fear of the unknown (Mintzberg, 1979). The choice between a strategy that integrates environmental issues into present institutional structures or a strategy that seeks to reformulate those structures does not alleviate this resistance. But, each strategy also holds unique opportunities and limitations, segregated along several dimensions.

First, working within the existing system will encounter less opposition and face a greater chance of short-term success. By co-opting existing political leaders, prominent businesses and leading institutions to “champion” environmental values, social change can be gained incrementally towards a more broad scale goal. For example, world religions are incorporating environmental concerns into existing structures of moral behavior and sin. In 1986, five world religions signed the Assisi Declarations, an agreement to attend to environmental concerns (Rockefeller & Elder, 1992). The Presbyterian Church placed environmental concerns into the church canon in 1991, making it a sin to “threaten death to the planet entrusted to our care” (Associated Press, 1991) and the Catholic church added environmental concerns to its catechism (Woodward & Nordland, 1992). By connecting environmental concerns to accepted notions of behavior and thought, resistance will be minimized as the change is less threatening or

challenging.

On the other hand, working within the existing system limits the range of potential outcomes to those which are already known and considered palatable by existing social constituents. The second path of challenging the existing institutional system holds a greater promise of yielding new structures and beliefs that have yet to be discovered. But, this strategy will encounter stronger opposition, face a greater chance of short-term failure and will take longer to succeed. It is a strategy similar to other fundamental social transformations such as the social construction of freedom in early western culture (Patterson, 1991) or the emergence of self-interest as a guiding value for human behavior (versus obligation to the general welfare), forming a necessary foundation of modern capitalism (Hirschman, 1977). To fundamentally alter institutional structures and fully incorporate environmental issues and interests (Evernden, 1992) would require a re-examination of the foundations of ethics (Jonas, 1973), technological development (Piller, 1991), science, medicine and economics (Capra, 1982) and the basic moral precepts of the world's religions (White, 1967). By challenging such fundamental institutions, resistance will be increased as the change threatens accepted ways of acting and thinking.

CONCLUSIONS

Field approaches to institutions and organizations challenge basic assumptions of the solitary actor perspective that is central to much behavioral research. Their arguments offer a conceptual framework and claims about institutional mechanisms to develop a cultural account of how things happen and why. We have explored a class of arguments and mechanisms that people call "institutional" but that we could also refer to as "cultural/cognitive" or

“cultural/structural.” The substantive topic — environmental issues and the question of mixed-motives — presents an excellent site to develop these issues: clear cases where identities and interests have taken form and solidified into practices, policies, and positions that comprise and reinforce the “mixed motives.” The very nature of the apparent tradeoffs or mixture of motives we see as institutionally-ordered and hence amenable to institutional redefinition.

But, we have gone further to propose strategies for setting an agenda in support of the mixed-motive analysis. We presented a discussion of how to deal analytically with the institutional framework that incorporates insights from recent studies in institutional theories of strategic action. Our prescriptions for deliberate efforts at change engage a contentious and central issue in modern institutional approaches — the nature and possibilities of “action” in institutions (see *American Behavior Scientist* special issue, vol. 40, no. 4). For although the focus in institutional theory is on symbols and meanings and rules, “it is essential that we do not lose sight of the human agents who are creating and applying these symbols, interpreting these meanings, and formulating, conforming to, disobeying, and modifying these rules” (Scott, 1994: 60). The literature must acknowledge “institutional entrepreneurs” (DiMaggio, 1991; Hoffman, 1999a), actors who possess “the ability to motivate cooperation of other actors by providing them with common meanings and identities” (Fligstein, 1997: 397). Such “social skills” combine insights from recent social and cultural theory, incorporate the insights of behavioral negotiations research, and find practical strategies in the language and practice of robust action (Eccles and Nohria, 1992; Ventresca, 1995). We now find ourselves in a time and certainly in places (management schools) when strategic action is back on the agenda and we have strived in this paper to integrate that agenda with the cultural realities of the institutional account.

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