

ANCHORING VALUES IN NATURE: TOWARD A THEORY OF BUSINESS VALUES¹

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Abstract: The dominant values of the business system—economizing and power-aggrandizing—are manifestations of natural evolutionary forces to which sociocultural meaning has been assigned. Economizing tends to slow life-negating entropic processes, while power-aggrandizement enhances them. Both economizing and power-aggrandizing work against a third (non-business) value cluster—ecologizing—which sustains community integrity. The contradictory tensions and conflicts generated among these three value clusters define the central normative issues posed by business operations. While both economizing and ecologizing are antientropic and therefore life-supporting, power augmentation, which negates the other two value clusters, is pro-entropic and therefore life-defeating. Business ethicists, by focusing on the contradictions between personal values, on the one hand, and both economizing and power-aggrandizing, on the other hand, have tended to overlook the normative significance of nature-based value systems. Learning to reconcile economizing and ecologizing values is the most important theoretical task for business ethicists.

IN his 1990 presidential address to the Society for Business Ethics, Michael Hoffman argued that ethical analysis of environmental problems and issues should proceed from a biocentric, rather than a homocentric, base. Only by placing biological knowledge at the center of environmental understanding, Hoffman argued, can we expect to make sense of what is happening and how or whether we might affect the outcome. To see only from a human-centered perspective produces distortion.²

Hoffman's language and theoretical thrust capture much of what is important in the study of business values. A theory of business values that draws heavily on knowledge produced by the physical and social sciences is likely, borrowing a phrase from Mike Hoffman, "to provide a deeper, richer, and more ethically compelling view of the nature of things"—or, it could also be said, a deeper, richer, and more ethically compelling view of the nature of business values.

Just outside the disciplinary boundaries where business ethicists do their work lies a veritable treasure house of exciting ideas and dramatic new perspectives. This part of the scientific community is alive with new discoveries and vigorous controversies. It includes the ethologists who study ani-

mal behavior, the biochemists who delve into the intricacies of life-affecting chemical processes, the molecular physicists and quantum theorists who search for ever more elusive particles and forces that operate at the tiniest of micro levels, the geneticists who track and map genetic codes, and—perhaps most exciting of all—the cosmologists whose theories embrace the very beginning of it all and where the universe seems to be heading. Many of these perspectives speak to the work done in the field of business ethics, and they provide a fresh set of possibilities for constructing a theory of business values.³

In this theory, “value” is given a particular meaning and usage. “Values” are derived from—are an outcome of—“process,” i.e., processes that directly and importantly affect our lives. Values *grow out of* these life-affecting processes. For that reason, values do not stand apart from us—or we from them. We *experience* values, and they are integral to our existence. They help us to interpret and assign meaning to life’s important experiences. There is always a connection—sometimes direct, at other times indirect and attenuated—between a life-affecting process and any value. Therefore, the sequence by which values come to exist is: first, the process, then the values. The life-affecting process extrudes values, which both reflect our experience and subsequently take symbolic and conceptual shape in our mind.

These extrusions of experience assume diverse conceptual forms because diverse conceptualizers have experienced these processes in diverse ways. Psychologists, for example, have tended to define values as “beliefs” held by individual persons.⁴ Others say that values are “standards” (or measures) of worth.⁵ Still others assert that values are “judgments” or “appraisals,” and some would have us focus on the “judgmental processes” that are involved.⁶

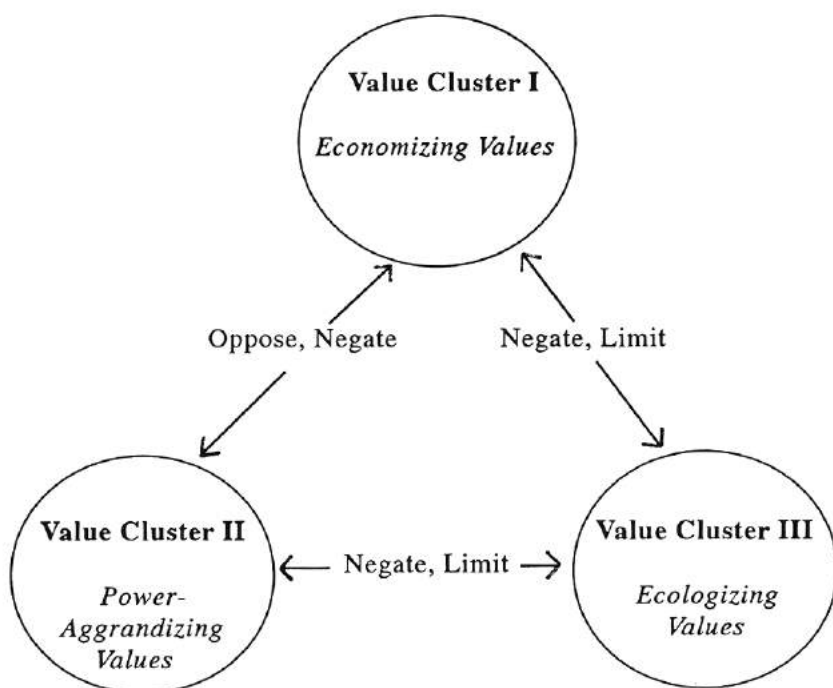
The theory of business values outlined here uses “value” in all of these senses: as belief, as appraisal, as judgmental method, and as moral or normative standard. However, these conceptual forms are nothing but abstractions of an underlying experiential process that gives them their meaning. The tripartite sequence of value formation is: first the process, then the values, then the conceptual abstractions.

Business Values: Overview and Basic Premises

A theory of business values must be able to account for—that is, to describe—the core values that give life and continuity to business activities. These core business values must be those that distinguish this institution from others, those that are entirely unique to business and which cause us to label some activities “business” in contradistinction to other kinds of activities. There is a cluster of such values centered around economizing, as depicted in Exhibit 1.

Exhibit 1

Value Clusters and Reciprocal Tensions



Value Cluster I sustains "economizing," which is an essential societal process. All of the values in this cluster support activities that cause individuals and groups to act prudently and efficiently in using energy and matter, thus economizing, conserving, and sustaining those resources required for survival and material flourishing.

But economizing is not the entire story of business values. Far from it! One also finds within business activities and institutions other values that are typical, commonplace, and characteristic. These found values, while *in* business, are not unique to business. Though characteristic, they are not essential to carrying out the basic business function of economizing. There is a cluster of these found values centered around power aggrandizement, also shown in Exhibit 1.

Value Cluster II sustains the "aggrandizement of power," which is a common phenomenon within human (and some animal) organizations. Most of the values in this cluster work toward the acquisition, retention, and accumulation of coercive power by and for those who hold commanding positions within organizations.

Lying *outside* of business, yet intimately tied to business's fortunes, is another cluster of values centered around ecological linkages and relationships, as depicted in Exhibit 1. Value Cluster III sustains "ecologizing," which is a component and outcome of natural evolution as well as a learned survival-trait of human communities. Ecological relationships interweave the life activities of groups in ways conducive to the continuance of that entire community, including the flora, fauna, and physical features that comprise the group's ecosystem.

The theory's argument is that these three kinds of values are incompatible with each other. Behavior based upon any one value cluster contradicts actions premised upon the other two. Fundamental tensions and conflicts are therefore inherent in business operations, as well as in the interchanges between business and society. These tensions are the source of the central ethical issues of business.

Viewed in historical and cultural perspective, the tenacious quality of these tensions and the conflicts they induce is quite remarkable. An explanation is wanted and needed of the forces responsible for such enduring and steadfast continuity through time and cultural space. The basic premise offered here is that these values both exist and persist because they express and are the outcome of gene-based, evolutionary processes that operate by natural selection. In other words, economizing, power-aggrandizing, and ecologizing values are rooted in nature. They are extrusions of naturalistic, experiential, life-affecting processes, which have taken or been given conceptual form. Each value cluster expresses an evolutionary outcome that is radically distinct from the other two. The tensions and conflicts generated between the three appear to be evolutionarily inevitable. This is tantamount to saying that the values by which we gain a living, allocate power, and establish communal relations with each other are anchored in nature.⁷

This is not to argue, in the case of humans, that culture plays no role in forming and shaping values. Each type of value is, also, a learned phenomenon transmitted by sociocultural means from one generation to the next. Nature and nurture exert interwoven effects, leaving their imprint on human values in varying proportions. But these values, while partially a function of cultural experiences, are not simply homocentric. They are not even entirely biocentric. They are also an outgrowth and extrusion of dynamic natural forces that embrace, in the most literal and comprehensive manner, the innermost recesses of our being and the farthest realms of the cosmos.

The discussion turns now to the specific values of business that come into play as a result of these natural forces. These central business values play a pivotal role in creating the ethical dilemmas that occur in business.

The Value Set of Business

A distinctive set of values is typically found in business organizations. The value set includes the nine types of values shown in Exhibit 2. Four of these distinctive business values serve the economizing function. Four others

Exhibit 2

THE VALUE-SET OF BUSINESS

ECONOMIZING VALUES

- Economizing
(Rudimentary, Start-Up)
- Sustained Input-Output
Balance
(Steady-State Economizing)
- Growth
(Productivity Increase)
- Systemic Integrity
(Organizational Bonding)

POWER-AGGRANDIZING VALUES

- Status Hierarchy
(Rank Order)
- Status-Based Decision
Power
(Managerial)
- Power-System Dynamic
Equilibrium
(Constrained Advancement)
- Power Aggrandizement
(Firm and Individual)

X-Factor Values

$$X_1 \dots\dots\dots X_n$$

support power aggrandizement. One type—X-factor values—is a kind of “wild card” or “joker” that can contribute to both economizing and aggrandizing, or to only one of them, or to neither. As will be told subsequently, a focus on X-factor values has tended to generate most of the literature of business ethics.⁸

All of these values provide the motivational power of the business firm. They also define its goals and determine the methods to be used. They condition and channel the behavior of all who work there. They provide the structure of core business beliefs, the judgmental methods employed, and the standards by which business behavior is assessed. In sum, they comprise the value matrix that causes business to be what it is and to do what it does. The ethical issues that arise in business—those within the firm and those without—originate in the interplay of these values with each other and with the values of Value Cluster III.

The imprint that nature has left on each of these central business values receives attention in the following paragraphs.

The Essentiality of Economizing

"Economizing" means prudent actions that produce a net excess of outputs from a given amount of resources. An economical action is one in which this net excess has been produced. An economical person is one who acts with this intention and result. One knows that economizing has occurred when it is possible to verify the net excess of outputs over inputs. A benefit-cost calculus is the typical way of knowing whether or to what extent economizing has occurred.

Long habit, culturally ingrained, has encouraged us to think of economizing as a market phenomenon, as indeed it is. But there is a deeper and more profound meaning to be found, one that embeds economizing in natural phenomena. Economizing, in this view, takes its meaning from entropy, which is an expression of the second law of thermodynamics.

The first law of thermodynamics tells us that energy and matter may be changed from one form to another but that none can be created or destroyed. A lump of coal, on burning, is transformed into heat, gas, and ash which in sum are equal to the energy and matter before burning.

The second law of thermodynamics holds that energy and matter move toward a condition of maximum disintegration, disorder, and degradation. Examples abound: the universe of galaxies expands toward maximum dispersal; galaxies and star systems cool, losing their energy; metals rust; living things die; useful energy (i.e., that which can perform work) is transformed into unavailable energy (i.e., wastes); waste in the form of unusable energy and matter accumulates faster than the products made possible by work energy, i.e., pollution outstrips gains in material production; costs outrun benefits.

This process of energy degradation is called "entropy." According to the second law of thermodynamics, entropy constantly increases throughout the universe and in any closed or isolated system. Entropy is inexorable and unavoidable. It offers no escape. It is nature's vise. It condemns all matter and energy and all living forms to the same fate, which is ultimate disintegration and disorder. Worse, it is irreversible. A lump of coal, once burned, cannot be reconstituted; entropy has changed it to heat, gas, and ash. Humpty Dumpty cannot be put together again.

Economizing and entropy stand as polar opposites in nature's theater. Economizing is a process of energy transformation, fundamental to life. Entropy degrades all energy, rendering life infeasible.⁹ An economizing person thrives only by drawing in and efficiently using sufficient energy to gain an excess of outputs over inputs. It is the only way to survive, grow, develop, and flourish. But on the other hand, if entropic processes are at work (and they always are), even the most efficient economizer can hope only to stave off, but not to escape, an ultimate state of disorder and chaos.

Moreover, the second law assures us that for every economizing gain there is a correlative degradation that diminishes the fund of energy available for life. In other words, economizing always increases entropy at some other point within the total environmental system. For example, an electric power plant may generate usable energy for its customers who thereby slow entropy's effects on themselves, but the waste products puffed out of the plant's stacks may create acid rain that destroys forests and aquatic life, as well as warming the earth's atmosphere via harmful "greenhouse effects." The temporary respite gained by some is more than offset by the environment's degradation. The costs of holding open the entropic vise are therefore large, while the illusory benefits, though welcome at the time, can never be as large. Energy runs downhill, never uphill. Time's Arrow—a poetic way of referring to entropy—is unidirectional.¹⁰

Were this the entire story told by entropy, it would be neither cheerful nor very interesting, except that one might want to contemplate the ultimate end and how and when it might arrive. Happily, thermodynamic process provides way stations on the road to doom. Organization and order also appear to be inherent features of Time's Arrow and an evolving universe. While an entropic equilibrium—i.e., maximum disorder—is an inescapable fate of each living form, a counter tendency embodying order, organization, pattern, and regularity stands opposed to entropic trends. Out of this organizing regularity, a sustained existence—stable compounds for the non-living, life for bacteria, plants, animals, and humans—becomes possible. Moreover, life can expand, develop, and flourish well beyond a mere sustenance level.¹¹

Obviously, genetic or cultural arrangements that slow down entropy's relentless journey toward its grim destination are to be welcomed. Genetic mutations, speciation, and morphological and functional adaptations that exhibit survival value are widespread among both plants and animals. In the human sphere, culture looms large as an adaptive phenomenon. It is in this sense that business acquires its central significance. It harbors and nourishes a vital economizing process that sustains life for those who shelter within its organizational umbrella. To that extent, the very core of the business value system is one manifestation of the naturalistic forces on which all life depends. These core values cannot be wished away—indeed, to do so would be directly counterproductive to life itself—nor can they be treated as somehow less worthy than others. Were it not for these values, there would be no others.

Besides economizing itself, three other values comprise the economizing cluster, as depicted in Exhibit 2. Like economizing, they occur and function as components of an evolutionary process that owes much, though in the case of humans not all, to gene-based natural selection dynamics. They are extensions and outgrowths of an *economizing* activity that initiates life. Once begun, life can be sustained indefinitely when a life-unit, whether plant, animal, or human, establishes a *steady-state economizing balance*—a sustenance equilibrium—between economizing and entropy. This equilibrium becomes a life-sustaining platform from which, with increasing suc-

cess at economizing, the living entity can *grow* within whatever constraints and to whatever outer destinations its genetic potentials (and for humans, sociocultural opportunities) permit. To effloresce in this manner requires an integrated wholeness—an *organizational or systemic integrity*—of all the functional parts of the living system.

These processes occur in all living entities. In some species, they are genetically encoded. In others, including humans, they are an admixture of genetics and consciously learned behavioral disciplines.¹² These naturalistic processes have extruded values, which in the business system take the conceptual form of economizing values. As such, they define the core value system of business.

Economizing is therefore the central, indispensable, defining characteristic of business. It emerges as the main normative principle of business activity. Business's social justification rests on this economizing principle, which is its central value.¹³

The Hedonism of Power

But there is more to business than economizing. Power and its augmentation are equally at home in business, thus defining a second value orientation.

The power-aggrandizing value cluster takes its meaning from organizational hierarchy. In every business organization, there is a discernible pattern of authority and a hierarchical distribution of power. The chief manager, or at times a small group of managers who share chieftain-like power, occupies the pinnacle of the hierarchy. From that point downward, power lessens level-by-level throughout the organization, matching a decline in the status ranking of those on successively lower levels. This rank-order arrangement permits some to be dominant over others regarding all significant matters facing the firm. This status hierarchy becomes the organizational spine around which the affairs of the firm are arranged and mediated.

In most corporations, status power becomes an end in itself. Seeking power, and defending oneself against the use of power by others, seems as normal to corporate denizens as water to a fish. Not only is power sought as a prized organizational reward by those within the hierarchy. The power seekers also want to preserve the *pattern or structure* of organizational power. Though rivals with one another, managers see their collective warrant of authority as bound up in the hierarchy itself. A threat to the hierarchy is a threat to their power *and* their authority. Nothing must be allowed to challenge prevailing status arrangements—neither disobedience, disloyalty, lack of enthusiasm, nor lack of conformity to organizational norms.

Thus, organizational power is ideally maintained as an equilibrium. Power is forbidden to pass to unauthorized persons in unauthorized amounts. Service to the firm's goals is rewarded by (carefully constrained) movement of individuals through the hierarchy's stable levels. Power struggles occurring as an adjunct to these awards, though frequent, are generally not permitted to rupture the power structure itself.

Hence, every business corporation exhibits a *status hierarchy*, *managerial power derived from rank order*, and *safeguards to preserve the power system itself* (shown in Exhibit 2). It is from this foundation that *power aggrandizement* rises up to become a dominant value of the business order.

We see this value in the goals that corporations set for themselves. A central goal of business is expansion, whether of sales, number and location of markets, diversity of products and services, number and types of employees, capital invested, revenues accrued, or profits secured. Many business corporations expand to great size, commanding a large and diverse array of resources.

As such expansion occurs, the power of the firm and its managers is augmented in a linear fashion. More employees require the issuance of more managerial directives and more subordinate supervisors to carry out those directives. Larger sales bring enhanced revenues and associated financial wealth. Expanding operations into new markets establishes a larger sphere of economic and geographic influence for the company. Greater accumulations of capital give access to advanced technology, creating greater market opportunities, geographical expansion, increased sales, the accumulation of yet more capital, etc.

Managers who direct, or are thought to be responsible for, this kind of expansion are typically rewarded with higher salaries, special bonuses, and other executive perquisites. Not infrequently, a measure of organizational genius and business acumen is attributed to them, swelling the general esteem with which they are viewed and doubtless bringing magnified psychological and emotional satisfaction. Honor, prestige, and greater social influence within their own circles accrue. Prominent political and social roles, with whatever influence they imply, may be offered to those corporate executives whose firms have markedly amplified their command of the financial and commercial worlds.

These rewards are powerful stimulants to executive action. They can and probably often do cause corporate managers to accept this kind of power aggrandizement as the main purpose and goal—the sustaining rationale—of the enterprise. Expansion of size *per se* becomes “the name of the game.”

Aggrandizement and growth (identified earlier as part of the economizing value cluster) are sometimes confused. They are not identical. Growth, which is a consequence of effective economizing, refers to the multiplication of a firm's productive potential so that its life may be extended into the future through repeated economizing acts. Growth is thus antientropic. Aggrandizement is merely an enlargement of the firm's size, usually motivated by the potential dilation of personal and organizational power. Aggrandizement is proentropic, diverting vital inputs from economizing to power seeking.¹⁴ The certain outcome of aggrandizement is an amplification of the power centered in the firm and wielded by its chief managers. Only rarely, perhaps never, does this ballooning of power signal the kind of economizing that can lead to growth.

It is difficult to find a more fervently held business belief (i.e., value) than

this commitment to aggressive expansion. It can produce in its devotees a frenzied, frenetic mien. Its attainment approaches the zenith of business accomplishment. A company's rank in the *Fortune Directory*, and those of its competitors, are eagerly scanned and held up to scorn or praise as the case may be. "Expand or die" in the corporate world is the proverbial equivalent of "sink or swim." As a business value, it haunts the dreams (and nightmares) of many executives, inspiring in them deeds of valor in the competitive fields of business endeavor. Their judgments and all of their organizational skills are bent to the pursuit of ever greater power and influence for themselves and their company. This addictive hedonism of power is the defining trait of corporate managerial culture and personality.¹⁵

Only a few cursory comments can be made here about the source of this power-aggrandizing value cluster. Ethologists have reached no definitive conclusions on the debt that power owes to nature. They do report that rank orders occur widely among animal species. Dominance and aggression are typical behavioral traits found throughout the animal world. In those cases, rank order rests primarily on phylogenetic processes encoded in DNA. But ethologists also stress that conceptual learning in the human species creates the possibility that the preference for rank order and power seeking goes beyond phylogenetic origins, expressing an *acquired* yearning for power over others. In that case, as one ethologist says, "[human] striving for power is particularly problematical since it is not turned off by biological control mechanisms as are, for example, hunger and thirst when the organism is satiated. . . . [By contrast with animals,] Our striving for power is insatiable."¹⁶ However, another leading ethologist maintains that "the lust for power, the striving for status [are] irresistible tendencies of phylogenetically programmed behavior."¹⁷

A postulate offered here is that the power component observed in corporate life is a blend of nature and culture. One finds little reason to believe that gene-based selective processes that made power-seeking and aggression so much a part of the life of animals and of our prehuman ancestors—and which operated over millions and millions of years—were simply displaced when conceptual thought and culture arrived on the scene. This argument continues, some maintaining that culture has crowded out or overridden these genetic propensities, others favoring the view that power seeking and aggression continue to reflect both phylogenetic encoding and cultural patterning. The view here is that the power-aggrandizing value cluster we see at work in the modern corporation is an overlay of patriarchal culture imposed on a base of phylogenetically encoded instructions.¹⁸

X-factor Values

The two dominant value clusters of business—economizing and power-aggrandizing—share space with another kind of value set called "X-factor." (See Exhibit 2.) The managers and employees of any business firm hold a multitude of diverse beliefs and personal value commitments. This value

diversity becomes greater as the company becomes more complex, as its labor force increases, as its demographic variety is greater, as its rate of employee turnover increases, and as it widens its geographic and cultural scope of operations.

The totality of such values held individually by managers and employees is called "X-factor" because their precise content and number cannot be known until specifically observed or inventoried. It helps to think of X-factor as an empty box capable of being filled with a large assortment of personal beliefs and values held by employees and managers. For any given business firm, the box will contain a collection of values that may or may not be the same as the collection in the X-factor box of another firm. Since these values are at work in the minds and actions of the company's managers and employees, they exert an influence, though an organizationally constrained one, on what happens there.¹⁹ A company's X-factor value box has the potential of creating enormous value differences within and between firms, because the possible range of values held by the sum total of all persons at work in an organization is almost infinitely large.²⁰

This kind of value diversity can pose serious problems for any firm. Its economizing goals can be jeopardized if the workforce is not attuned to economizing values. Its power-aggrandizing goals can be defeated or diminished if a critical mass of employees exhibits a laxness of organizational discipline. Therefore, the particular set of values deposited in the X-factor box of any given company becomes a matter of great concern to its leaders.

Care in recruitment can help. Training can inculcate desired organizational skills and attitudes. Work groups, task forces, and committees provide a workplace audience for displaying not just technical proficiency but appropriate commitment to desired values. Formal job evaluations can bring errors and shortcomings to the employee's attention and threaten sanctions if improvements are not forthcoming. Long tenure in a job or company can slowly erode sharp differences in value orientation that may have been present at the outset of one's career. A settled community and family life, with all of the typical commitments they entail, encourage an outlook that may grow closer to that expected by one's corporate employer.

The outcome cannot be predicted with certainty. Some employees, frequently nurtured in and graduates of business schools, acquire economizing disciplines, talents, and values that are then dedicated to the firm's economizing needs. There are many in the business school faculty who would argue that the ideal MBA is a perfect economizer, shorn of all other contradictory tendencies (while at work). On the other hand, when employees are trained to accept the power games of business, or when they are emotionally attracted to such arenas of business power, the X-factor values they bring with them into the firm are naturally drawn into the power vortex and serve those purposes. At yet other times, X-factor values may be resistant to power games (e.g., in whistle-blowing incidents) or they may be simply irrelevant to both economizing and workplace power struggles.²¹

Concerning their origins, X-factor values are by definition idiosyncratic,

personal, individual, and privately held, although always formed within a network of sociocultural experiences. Their origins are therefore found only within an individual's unique life history as it is played out within a particular sociocultural setting. That this idiosyncratic journey is shaped also to a very large degree by one's genetic heritage cannot be denied. Consider, for example, how culture assigns critically important meanings to gender, race, age, body structure and weight, genetically-induced diseases and proclivity to them, and other genetically conditioned human characteristics. In this way, our individual lives—our unique life histories and our personal values—bear all the marks of the genetic features we received from our parents.

The view that the *defining values* of business are limited to the three value clusters identified here might understandably draw objections. Some would want to insist that the typical business firm manifests a far larger range of indispensable and characteristic values. However, a close examination of such other values usually reveals them to be X-factor values, there being many beliefs, standards, judgmental methods, and evaluative outcomes experienced by the many individuals who work in, or do research on, business firms. Few of these values are found to be essential to the normal operations of most business firms, although they may contribute importantly to the *style* of operation that is characteristic of particular companies. Any such subsidiary values achieve their importance in the business arena by the extent to which they are related to the core values of business that comprise Value Clusters I and II. These matters are given greater consideration in the more comprehensive version of the theory.

Ecologizing Values

There is a third set of values related, but not integral, to business operations. These are ecologizing values (see Exhibit 3). These values do not

ECOLOGIZING VALUES
<ul style="list-style-type: none">• Symbiosis (Direct, functional)• Collaboration and Mutual Life-Support (Complex, reinforcing, time-stable)• Group Defense and Integrity (Social interchanges, signals)• Community Sustenance Equilibrium (Dynamic, probabilistic)

function in the service of business and are not an actual part of any business enterprise. Their presence rather arises from different sources, and their consequences are quite distinctive from those produced by economizing values and power-aggrandizing values. They are fast becoming a moral standard by which we measure business's performance.

"Ecology" refers to the interconnectedness that knits a community of life forms together with themselves and with the environment of their ecosystem. These systematic linkages are an outgrowth of cosmological and gene-based evolutionary processes operating according to the logic of natural selection. The ecological networks, whether consisting of plants, animals, bacteria, humans, or some combination of these, are one outcome of these evolutionary forces operating on each other in specific environments. For given populations, these concerted interweavings have adaptive survival effects for the collectivity of life forms involved. As such, they constitute an offset to entropic trends, somewhat akin to similar effects exhibited by economizing but markedly different in scope and overall societal outcome.

Symbiosis links life forms to each other in succoring ways, with each dependent on the other for the performance of some vital function. The relationship tends to be stable over time.

A second value process—*mutual support and collaboration*—may involve a more dynamic and more comprehensive transaction among life forms than a symbiotic tie. The plant and animal worlds manifest many different forms of this kind of collaborative support process, as observed and reported by biologists and ethologists. These regularities also persist through time.

The third value—*group defense*—is frequently and widely reported, particularly by ethological research. These defense mechanisms are principally protective of *groups* of life forms rather than (and sometimes at the expense of) individual life-units, as may happen when the outermost sentinels in a group of grazing animals or schooling fish perish while alerting the group to the presence of a threatening predator.

The fourth value—*community equilibrium*—is an evolutionary outcome of the other three values. It is a dynamic equilibrium, subject to whatever environmental forces may be at work from time to time in the life of the community. Various self-correcting processes tend to maintain any given community of interrelated life forms in a steady state over reasonably long periods of time.

These ecologizing processes—and the values they spawn—are observed in human communities as well as among groupings of plants and animals. As with economizing and power aggrandizing, the resultant values are a derivative of a natural evolutionary process, subsequently acquiring socio-cultural meaning.

In human consciousness, these ecologizing values are only "half formed" when compared with the economizing values of business.²² Although the underlying cosmological forces that allow ecological relationships to emerge as an evolutionary outcome are perhaps as ancient as those govern-

ing economizing, the emphasis among life forms has long been on economizing. The reasons for the primacy of economizing are not entirely clear, although the logic of natural selection is to advance the cause of individual life-units in their struggles against entropy and, hence, to promote those economizing practices that produce these adaptive effects.²³

In spite of the murky beginnings of ecological awareness, the last half of the 20th century has clearly seen its rise and expression on a new and remarkable scale. Sustained not only by scientific understanding but also by the kinds of problems that have appeared—acid rain, global warming, stratospheric ozone depletion, worldwide nuclear radiation perils—a large proportion of the world's peoples is now ready to accept and believe in the importance of ecological processes. We now witness international (both intergovernmental and inter-industry) compacts to control CFC production that is harmful to stratospheric ozone; treaties to curb nuclear testing; treaties to control ocean dumping, mining, and fishing; regional compacts to reduce acid rain and global warming; and international outreach efforts to succor people in the world community suffering the ravages of drought-induced famine, typhoons, floods, volcanic eruptions, wars, epidemics, and other events and forces that splinter and threaten to destroy life and community integrity.

Here indeed is a moral standard to measure the behavior of individuals, governments, and business corporations. The values that cluster under the banner of ecologizing stand in clear contrast to both economizing and power aggrandizing. Ecologizing proceeds by collaboration and cooperation, whereas both economizing and power aggrandizement are most successfully achieved by competition and self-centeredness. Ecologizing promotes the survival of integrated groups of living things within their respective ecosystems. Economizing and power aggrandizing pit groups against one another in a vast and destructive zero-sum game. It is out of these differences that the most important normative issues in business arise to confront us.

Normative Games Nature Plays²⁴

Garrett Hardin has written about "the tragedy of the commons."²⁵ Nature offers an analogous tragedy, which might be called (less elegantly) "the dilemma of contradictory normative outcomes." The essence of this tragedy is that each of the three major value clusters not only intersect one another but in so doing are driven to diminish each of the others. (See Exhibit 1.)

Within any given business firm, as well as throughout the entire business system, economizing and power-aggrandizement constantly work against one another. Power-hungry executives create bloated corporate empires that far exceed any possible economizing gains. They reward themselves with sovereign-like incomes and perquisites that have no rational basis in economic productivity. They organize the corporate workforce in economically ineffective ways that serve the needs of power acquisition and retention. On rare occasions, rational economizers are able to scale down these royal

privileges by substituting matrix organizational schemes for traditional status pyramids. The general rule, though, is that the vital economizing function on which business and society are dependent is constantly at risk from the incessant quest for power and its rewards.

Similar effects are visited upon ecological systems when business's "big-is-good, bigger-is-better, huge-is-best" penchant is allowed free reign. The clear-cutting of forested areas, the careless disposal of hazardous wastes, the abandonment of strip mines and deep-shaft coal mines followed by the leakage of toxic chemicals into waterways, massive oil spills that destroy undersea and shoreline ecological systems—all of these ecological disasters are typically perpetrated by expansionist corporations bent on both profits and power.

Even more tragic is the incompatibility of economizing and ecologizing. It is more tragic because both of these value clusters sustain life. Both are an offset to entropy. Both enable a flourishing of life within the potentials set by nature and culture. Because economizing proceeds from the competitive self-centeredness of individual life forms or of tightly organized groups, and because its drive is toward survival, its outcome frequently dooms the more comprehensive community needs defined by ecological relationships. A power plant whose emissions cause acid rain, create global warming, and poison a community's air may be an economizing marvel. No less incompatible are ecology-inspired global controls imposed on industrial activities that diminish the economizing capacities of business firms, as exemplified by the Montreal Protocol regulating production of CFCs. In the working out of natural evolutionary processes, economizing and ecologizing embarked on an unavoidable collision course. The tragedy is embedded in the laws of thermodynamics: the two major antientropic forces of nature on which all life depends work against one another. So, too, do the values they spawn.

Were these contradictions to be laid at our doorstep by culture and were they to be seen simply as one more example of laggard social custom in need of reform, one could imagine that in time ways might be found to reconcile the value incompatibilities that have brought us to this impasse. Alas, it is nature and not culture alone that presents us with this massive normative puzzle. The *economizing* values at work in the business order are anchored in evolutionary processes that are largely a working out of the laws of thermodynamics. So too are the *ecologizing* values that sustain and integrate community life for all.

It is only the *power-aggrandizement* values that give one pause. Could they just possibly be a creation of culture alone? Dare we hope that patriarchal power systems, which have been dominant throughout most of culture's evolution, are an ancient "invention" of men, an early groping toward human arrangements that then became culturally embedded as privileged systems of power? There is a sense in which we might welcome such an interpretation, for it is these power-aggrandizing, proentropic values that oppose the life-sustaining, antientropic values of economizing and ecologiz-

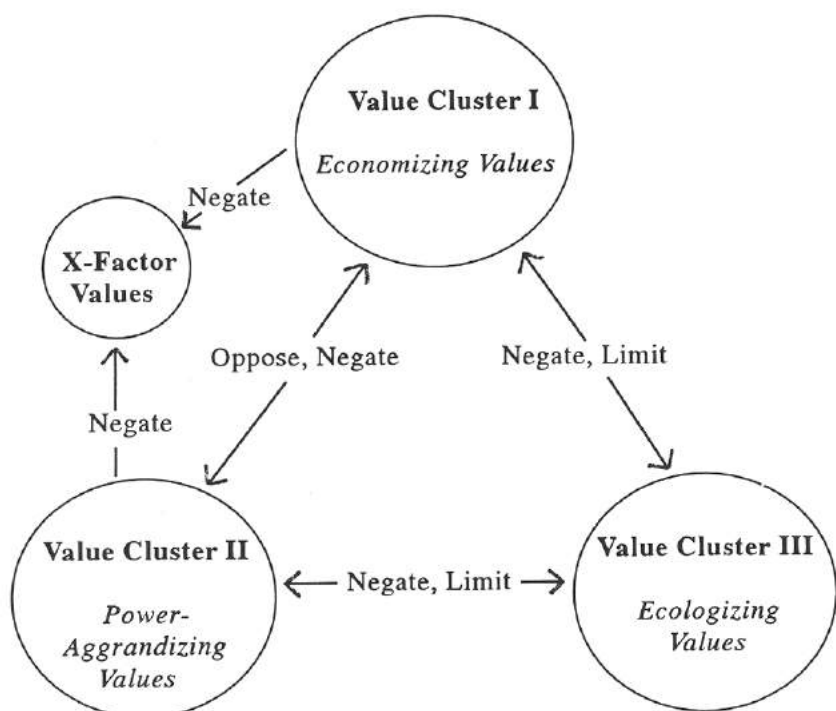
ing. Culturally acquired behavior can be unlearned, however long and difficult that process may be. If, on the other hand, the human addiction to power owes its life to nature—if aggression, exploitation, dominance, and brute power ruthlessly employed are manifestations of phylogenetic processes at work—then the problem, and the future, are cast in deep shadows. Were it not for this grim possibility, one might well imagine that aggressive power in time could be curbed and tamed. That in turn would free business ethicists to confront their *primary normative task*, which is to clarify, and perhaps help to reconcile, the tensions between economizing values and those that sustain ecological processes.

The Course of Business Ethics Inquiry

Business ethicists have typically confined their work to the ethical dilemmas produced when economizing and power-seeking impinge on X-factor (personal) values brought into the workplace by individuals. (See Exhibit 4.)

Exhibit 4

Value Clusters and Reciprocal Tensions



This homocentric analysis draws heavily on philosophic principles that speak mainly to the values of individual persons.²⁶ The principal analytic concepts of the field owe much to the past, reflecting in a curiously relativistic way the diverse meanings imparted to them by successive societies and cultures. For the most part, they came into usage long before commerce was the central and dominant facet of civil life that we experience today. Many (perhaps most) of philosophy's analytic categories also predate present knowledge of human nature, human culture, and modern cosmology.

This disjunction of analytic posture and the process being studied may carry the field toward an identity crisis of major proportions, for the following reasons. The normative thrust of business's dominant value systems is in two directions. One is toward economizing, which is a life-sustaining activity vital to, and valued by, all. The other is toward power seeking and power augmentation, which mainly rewards those who attain power. One cannot readily expect business *qua* business to accept or to legitimate any other normative directives than these two. It is for this reason that the great body of business ethics theory has defended these X-factor (individual and personal) values as they suffer insult from economizing and power aggrandizement.

That is also why the world of business practice, to our collective chagrin, tends to shun or discount our normative observations about business performance. Our *analysis*—focused on X-factor values—has been cut adrift from the *processes*—economizing and power aggrandizing—in which business practitioners find themselves immersed on a daily, monthly, and yearly basis. Nature and culture bind them to their tasks. Intellectual habituation binds us to ours. The need is to bring normative analysis and business process closer together, to make ethics analysis speak to the natural and cultural processes that have brought both business and society to this point in human evolution. It will not be easy, given the enormous historical, cultural, and scientific gap between business ethics' traditional analytic categories and the normative drives embedded in the business system.

But the task is urgent and compelling. The central normative problem facing business and society is posed by nature. Business ethicists need to find ways of reducing the corrosive effect of economizing and power-augmentation on ecological integrity. Being in nature's grip, which we surely are, need mean neither resignation nor surrender. But the homocentric analysis of X-factor values that is so commonplace in business ethics theory leaves us out of touch with the more fundamental normative issues posed by nature, nature's laws, and evolutionary process. The normative significance of business operations, particularly their impact on the ecological integrity of community life, is more likely to be discovered when we accept the view that values, for all of their cultural elaboration, are anchored securely within nature.

Notes

¹A condensed version of this paper was presented as the presidential address to the Society for Business Ethics, Miami Beach, Florida, August 10, 1991.

²W. Michael Hoffman, "Business and Environmental Ethics," *Business Ethics Quarterly*, vol. 1, no. 2 (April 1991), pp. 169-84.

³The account given here is only a partial view of a more comprehensive theory of business values. This paper outlines the principal theoretical framework—the conceptual infrastructure, so to speak—but does not carry the analysis very far into the precincts of everyday business behavior. These latter features are given fuller treatment in the more comprehensive version.

⁴Milton Rokeach, *The Nature of Human Values* (New York: Free Press, 1973).

⁵Clyde Kluckhohn, "Values and Value Orientations in the Theory of Action," in Talcott Parsons and E. A. Shils (eds.), *Toward a General Theory of Action* (Cambridge: Harvard University Press, 1951), pp. 388-433.

⁶John Dewey, "Theory of Valuation," in Otto Neurath (ed.), *International Encyclopedia of Unified Science*, vol. II, no. 4 (Chicago: University of Chicago Press, 1939), published separately as a monograph.

⁷This view is not equivalent to a simplistic Social Darwinian concept of evolutionary process whereby only those features survive that prove to be the "fittest." Natural selection does indeed produce such outcomes but that is not the entire story. Morphological and behavioral variation and diversity of flora and fauna appear also as a function of genetic mutations, environmental changes, and—in the case of humans—cultural intervention. The evolutionary process that extrudes values is not predetermined or teleological nor is it destined to produce an ideal or satisfactory outcome. In fact, quite contrary to the rigidities of Social Darwinian thought, evolutionary process is remarkably open, variable, and highly probabilistic. For that reason, values extruded by it tend to reflect these diverse characteristics. For a discussion, see Konrad Z. Lorenz, *The Foundations of Ethology* (English translation by Konrad Z. Lorenz and Robert Warren Kickert, [New York and Wien: Springer-Verlag, 1981], pp. 22-33ff). Lorenz has remarked in another place that "Life itself is a steady state of enormous general improbability . . .", *Evolution and Modification of Behavior* (Chicago and London: University of Chicago Press, 1965), p. 32.

⁸Presenting these values as linear lists, as in Exhibit 2, is problematical and potentially misleading as to their relationship with each other. Showing each cluster as an evolving dynamic helix or corkscrew, with intricate feedback loops, would more accurately capture their unstable, probabilistic, nonlinear, and non-teleological nature. It would also permit showing the possibility of disintegration of the helical relationship, which is fully capable of occurring at each point in each respective value matrix. Both reinforcing and disintegrative forces operate within each helix, making value stability within business a highly uncertain condition.

⁹Economizing, in a sense, is a manifestation of the first law of thermodynamics because it consists largely of the transformation of energy and matter from one form to another, neither creating nor destroying any in the process. Entropy, on the other hand, is an expression of the second law of thermodynamics which operates even while economizing is occurring and in contradiction of its beneficial effects.

¹⁰Stanley W. Angrist and Loren G. Hepler, *Order and Chaos: Laws of Energy and Entropy* (New York: Basic Books, 1974); and Daniel R. Brooks and E. O. Wiley, *Evolution as Entropy: Toward a Unified Theory of Biology* (Chicago: University of Chicago Press, 1986).

¹¹The remarkable, revolutionary theoretical and empirical work that has established—just within the past quarter century—the possibility of the simultaneous existence of entropy and these counteracting, life-sustaining processes is summarized in Peter Coveney and Roger Highfield, *The Arrow of Time* (London: W. H. Allen, 1990), especially Chapters 5, 6, and 7. Those interested in elucidating ethics and values in the business realm might want to heed the authors' statement that "theory which cannot accommodate this facet of time must inevitably be barren when it comes to describing whole parts of the real world." (p. 219).

¹²Most, and certainly the most fundamental, processes that allow economizing to proceed in humans are genetically encoded, taking the form of involuntary processes that operate according to DNA instructions. These include the digestive system (literally an input-output process), the heart-lung-circulatory system (also input-output), the immune system (to defend the integrity of the whole), the nervous system (to coordinate and defend), ovarian function (egg production, fertilization, gestation, lactation, menstruation, menopause), sexual stimulus-response and function (arousal, erection, insemination), the muscular and skeletal structures, the diurnal pattern of waking and sleeping, and other such functional processes. Each of these, we have learned, can be affected positively or negatively by an overlay of socio-cultural instructions and supplements. These latter condition, but do not substitute for or eliminate, the gene-based instructions embedded in a person's DNA.

¹³This is not to say that any particular *form* or *system* of economy—for example, a Western-style free market system—reflects only nature and is therefore unattainable because created by the laws of nature. All economic systems, of whatever character, are a blend of nature-based economizing processes and cultural custom. Any economic system is an overlay of culture on nature, usually reflecting a society's prevailing system of power and privilege. The best historical account of the relationship of economy and culture is found in the work of Karl Polanyi, especially *The Great Transformation* (Boston: Beacon Press, 1944), where Chapters 4 and 5 and items VI and VII in Notes on Sources are particularly enlightening.

¹⁴While aggrandizement and growth may occur simultaneously, they need not. A company may become larger, through internal expansion or by merger or acquisition, without experiencing an increase in productive output; and a company may grow more productive without becoming larger. Aggrandizement frequently comes closer to explaining corporate mergers than does growth since the latter often does not occur with or following a merger and since many mergers thought to have been made in an economizing heaven lead rather to the divorce courts. For a discussion of the internal executive psychodynamics that drive some merger decisions, see Diane L. Swanson, "Dysfunctional Conglomerates: A Dynamic Model of Dysfunctional Organizational States," (Research Paper 91-05, Business Government, and Society Research Institute, Katz Graduate School of Business, University of Pittsburgh, June 1991).

¹⁵This story has been told in all of its devastating detail by Robert Jackall in *Moral Mazes: The World of Corporate Managers* (New York: Oxford University Press, 1988). An equally riveting account has been given by Howard Schwartz in *Narcissistic Process and Corporate Decay: The Theory of the Organizational Ideal* (New York: New York University Press, 1990). See also Charles M. Kelly, *The Destructive Achiever: Power and Ethics in the American Corporation* (Reading, MA: Addison-Wesley, 1988).

¹⁶Irenaus Eibl-Eibesfeldt, *Human Ethology* (New York: Aldine de Gruyter, 1989), p. 719.

¹⁷Konrad Lorenz, *The Waning of Humaneness* (Boston: Little Brown, 1983, 1987), p. 141.

¹⁸For an account of patriarchy's appearance and spread, see Gerda Lerner, *The Creation of Patriarchy* (New York: Oxford University Press, 1986). Successive waves of cultural evolution over many millennia appear to have added a veritable multitude of power permuta-

tions to the simple melding of rudimentary patriarchy with gene-based aggressive power. The extent to which patriarchy owes a debt to genetically encoded male aggression is an open, intriguing question.

¹⁹George England, in a prescient empirical study of the 1960s, differentiated between the "operative values" and "intended values" held by corporate managers. The former directed decisions compatible with the firm's goals, while the latter were personal value commitments that tended to be submerged and subordinated to organizational needs and disciplines. Both of these value categories, but especially the one labeled "intended values," capture the meaning of X-factor values. See George W. England, "Personal Value Systems of American Managers," *Academy of Management Journal*, vol. 10 (1967), pp. 53-68.

²⁰The boundaries and substantive content of any given X-factor box would normally be set by the firm's host society, but such a boundary can be breached by intruders from other societies who carry somewhat different values. Other value dissonances and variations in any given X-factor box can arise from personal intellectual exploration and philosophical speculation. So, the bounded nature of X-factor boxes is by no means absolute.

²¹For a discussion of the various contradictions and inconsistencies one sometimes finds between corporate strategy and the X-factor values of employees, see R. Edward Freeman and Daniel R. Gilbert, Jr., *Corporate Strategy and the Search for Ethics* (Englewood Cliffs, NJ: Prentice-Hall, 1988).

²²The horizon of ecological awareness may be quite ancient in human affairs. A "respect for nature" is said to have been a trait of many cultures in the past, often expressed through religious ritual and beliefs. These stories may be exaggerated and give too much credit for ecological balance. It also becomes difficult to distinguish between mere sentimental attachment to "nature" and a conscious awareness of ecological linkages that have adaptive significance for human communities; the two are sometimes confused by retrospective historical or anthropological analysis.

²³The severest form of this position is found in Richard Dawkins' book, *The Selfish Gene* (New York: Oxford University Press, 1976). He argues that the unit of evolution is the gene, not the individual life form that carries the gene. In this view, genes replicate themselves within an arena of natural selection; successive generations of genes are thus selected for adaptation and survival. The argument is important for genetic theorists but does not appear to be central to the point of view being developed here, unless one might wish to think of an individual life-unit (a plant, animal, or human) as an ecological community of genes. This latter interpretation would not disturb or invalidate the notion of ecologizing values that is being developed here; it would simply reconceptualize those values as operating at a genetic, as contrasted with an individual life-unit level of analysis. Such a shift strains the normal usage of the term "value." See also Richard Dawkins, *The Extended Phenotype: The Gene as the Unit of Selection* (Oxford: W. H. Freeman, 1982). The question of priority as between economizing and ecologizing remains an open one, for a case might be made also that rudimentary organization, a process that underlies and sustains all ecological relationships, can arise at a very early point in the emergence of entropically-affected systems. Several examples and a discussion are contained in Coveney and Highfield, *op. cit.*, Chapters 6 and 7.

²⁴"Nature" of course, "does" nothing whatsoever. This quaint usage is but a mythopoeic remnant of earlier times, comparable to similar anthropomorphizing of the planets, sun, moon, wind, tides, and other features thought to possess human-like qualities. Unable to comprehend cosmic processes for what they are, humans have apparently found some psychological comfort in imputing human (teleological) meaning to them. This ancient habit of thought is reflected in the language forms used here, although there is no intention to

encourage or perpetuate the philosophy that gave rise to such usage. For the distinctive traits of mythopoeic reasoning, see Henri Frankfort, H. A. Frankfort, John A. Wilson, and Thorkild Jacobsen, *Before Philosophy: The Intellectual Adventure of Ancient Man* (Harmondsworth, Middlesex: Penguin Books, 1949), original edition: *The Intellectual Adventure of Ancient Man* (Chicago: University of Chicago Press, 1946).

²⁵Garrett Hardin, "The Tragedy of the Commons," *Science*, vol. 162 (1968), pp. 1243-1248; and Garrett Hardin, "Second Thoughts on 'The Tragedy of the Commons,'" in H. E. Day (ed.), *Economics, Ecology, Ethics* (San Francisco: Freeman, 1980).

²⁶For some theorists, they speak *only* to individual persons. See Manuel Velasquez, "Why Corporations Are Not Morally Responsible for Anything They Do," *Business and Professional Ethics Journal*, vol. 2, no. 3 (Spring 1983), pp. 1-13. This is not to say that business ethicists do not acknowledge or show awareness of social magnitudes, as when social contract theories, notions of social justice, and various social problems are analyzed. The work of Thomas Donaldson, Norman Bowie, and Richard DeGeorge is ample evidence of this kind of social awareness. Nevertheless, long-established intellectual traditions in the field tend to bias analysis toward concern for the individual person.