RESOURCE MANAGEMENT AND MORAL ACCOUNTABILITY

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ABSTRACT

One hopes that the world will be better in some moral sense because of environmental management and planning. It is reasoned that this hope depends in part upon a social process of moral accountability with respect to the control of resources. Such accountability is examined without assuming any particular value system. The paper examines how accountability can be avoided, distorted and directed away from those with the most control toward those with the least control.

Introduction

We can no longer meaningfully speak of evolution without acknowledging that the direction of evolutionary change is now influenced to some degree by a holistic property of Homo sapien cultures which we call moral awareness. The behaviors of human cultures and their ecological influences, which now are not small, are guided, to some degree, by this holistic property in a way that appears unique to the human species. Moral awareness is indeed a holistic property because it is realizable and relevant, not so much for individual human organisms, but, for the relationships among humans and between humans and their environments. An awareness has evolved (and continues to evolve) through human relationships that is much more than a property of individual humans. As the awareness of color emerged with the evolution of eyes, so the awareness of something we call moral (and sometimes spiritual) has emerged through the evolution of human relationships.

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This something is not a touchable or mechanical entity which can be gathered and weighed, yet the notions of moral rightness and wrongness do apply to human experience in a way no less real than the notions of heavy and light.

I suggest that the words planning and management, in both the private and public sectors can be used to describe organized efforts of modern societies to consciously give some direction to socioecological evolution. But organized planning and management is only a part of conscious evolution and it is fragmented and often applied for conflicting purposes. The realization of moral awareness is a broader process-property which extends beyond deliberate planning and management, yet, one has the hope that, in some overall sense, management and planning, no matter how diverse and fragmented, will respond to the holistic property of moral awareness. One would hope that the direction of socio-ecological change is somehow better, in a moral sense, because of planning and management, but there is, of course, no guarantee that this will occur. After all, some of history's most deplorable acts were well planned and managed and today, the most destructive potentialities of human societies (e.g., war, pollution and resource depletion) are maintained by highly organized forms of management and planning.

It seems important, then, to examine the socio-ecological process through which numerous planning and management activities (from individual to governmental and corporational) are connected to the process of moral awareness. I suggest that a connecting process-property is moral accountability. I will not attempt to define moral accountability, but I do suggest that the term includes a process through which people, stripped of title, status or prejudice, become more truly known to others and themselves for who they really are, what they have really done, what they might have done and what they have tolerated and encouraged. Such a process cannot be dominated by rules, laws and authority but is rather based upon the honest dialogue among persons and particularly, dialogue which includes as equals those most responsible for actions and those best able to expose the waste, deception and injustice of such actions. Drawing upon the work of Martin Buber, we can say that such fundamental accountability results from I-Thou relationships which are based upon mutual involvement rather than I-It relationships which are based upon manipulation and control [1]. Without some form of moral accountability, moral awareness can become a frivolous evolutionary idiosyncracy and evolutionary change continues to

respond to the competition for limited resources. It is doubtful whether contemporary human societies with their tremendous technological power, can long survive such competitively motivated evolution. Moral awareness is an evolved and evolving property of human societies and whether we like it or not, our continued survival appears to depend upon its use. Thus, there appears to be good reason for taking the process of moral accountability seriously.

General Approach

In this paper, some aspects of moral accountability will be examined with respect to the control of human and non-human resources. For this study, I will apply an approach and style which is currently fashionable within technical literature. A simplified society will be assumed and relevant features of this society will be mathematically described. That is, a "mathematical model" will be employed. I will not define or assume any particular value system for this model society. A wide range of different value systems could be accommodated by this model. I will however, assume that this society has some moral awareness and has some shared notions of good, right, valued, worthy, and proper as well as bad, wrong, evil, and improper. The moral awareness of this assumed society might be expressed in those stories, rituals, declarations and documents which the members of this society freely and honestly hold to be most important and sacred. These would express beliefs, attitudes and commitments concerning the use of human and non-human resources and the distribution of control within the society. I will not define such things, but I will merely assume that the model society has some honest moral beliefs and commitments arising from its moral awareness.

I will make a number of assumptions throughout the paper and I will attempt to support them by drawing upon experiences from contemporary society. Finally, the use of a simple mathematical model is merely a choice on my part to employ a communication style which is now in vogue and for which I have some experience. The implications of this model are hardly new and they have been far more eloquently expressed for centuries [2]. Nevertheless, their restatement in a contemporary form may have some value.

Value and Income Within a Simple Society

For the purpose of our discussion, let us assume a relatively simple model society as a system of interrelating and overlapping social units. These social units may be defined at different levels of organization. An individual person would be the most basic social unit to which moral accountability could be directed. Individuals collectively form broader social units: organizations, establishments, industries, social classes, etc. Moral accountability must also be directed to these broader social units which may be public or private. The entire society forms our broadest social unit and it must also be included within moral accountability.

This society has a set of laws, taxes and public expenditures which provide constraints, incentives and disincentives on economic activities. We will assume that the dominant form of control over human and non-human resources is economic in nature. Economic control, of course, can be obtained in a variety of legal and illegal ways.

We will describe a dollar as a control certificate; it gives the holder a certain amount of control over the use of resources. In our simple society, we will assume that the amount of control that a social unit has over human and non-human resources is measured by the rate at which dollars (exchangeable control certificates) pass into and through it. This rate will be designated as income, I. That is, the gross income (less general purpose taxes), of an individual or organization (public or private) is taken as an indicator of its control. The distribution of power and control within our simple society will thus be described by the distribution of income. There are, of course, powerful forms of control other than economic. Administrative and bureaucratic controls are particularly frustrating; accountability is often thwarted because responsibility is so elusive and anonymous. The elusiveness of bureaucratic accountability is exemplified in fiction by Kafka [3] and in non-fiction by Halberstam [4]. Without denying the significance of such controls, this paper, for simplicity, will assume a simple society where other types of control have been converted to an income equivalent.

Accountability will deal with the question of whether the behavior, activities and consequences of a social unit justify its income of control certificates. Such accountability will apply to all social units within our simple society, thus, in total, accountability is concerned as to whether the use and distribution of control (income) within the entire society is honestly consistent with its fundamental values and beliefs. The value of a social unit's behavior, activities and socio-ecological consequences is determined on the basis of moral beliefs and commitments and honest dialogue. Such moral values might differ significantly from values determined by the legal authority, democratic majority or market system. As

an example, religious and non-religious communities may have a moral commitment to sustain renewable resources for future generations. Traditional economics, government policies and a competitive market, however, can lead to the over-exploitation of renewable resources [5, 6].

In this paper, the term, value, will be expressed as the maximum income of control certificates which could be justified for the behavior, activities and consequences of a social unit on the basis of the society's honest moral beliefs. We would hardly expect exact measurements of such values. Let us assume, however, that in our simple society, values could be imagined for a variety of identifiable social units. While such values would not be exact, we will assume that they could be sufficient to describe the more significant departures from moral beliefs and commitments. We may thus define two terms:

- I = the number of control certificates (dollars) that a social unit receives (I is always greater than zero) and
- V = the maximum number of control certificates that a social unit's activities, behavior and consequences could justify on the basis of honest moral beliefs and dialogue (V may be positive or negative).

Moral accountability will involve a comparison of actual income, I, to justifiable income, V. This comparison will be expressed in the form of simple ratios and differences. Let us consider an accountability ratio which is the amount of control certificates justified, V, divided by the actual control certificates received, I. That is:

$$R = \frac{V}{I} \tag{1}$$

in which R is the accountability ratio.

Let us also consider an accountability difference, D, which is given by the equation:

$$D = V - I \tag{2}$$

In our simple society, we could hold a social unit accountable by examining its accountability ratio, R, and accountability difference, D. If its R was above one and its D was positive, we could then assume that the value of its activities, behavior and consequences justified its income of control certificates. If however, its R was less than one and its D was negative, we could assume that it was not deserving of its income (its control of human and

1	2	3
R or AR > 1	R or AR < 1	R or $AR < 1$
D or AD > 0	D or AD < 0	D or AD << 0
worthy	unworthy	really unworthy!
beneficial	harmful	vile
virtuous	wrong	rotten
just	unsound	perverted
efficient	inefficient	criminal
paragon	loser	parasite
productive	unproductive	destructive
admirable	objectionable	contemptable
respectable	uncommendable	despicable
deserving	undeserving	inexcusable
proper	inappropriate	atrocious
pulling your weight	subsidized	ripping off
eminent	shabby	disgraceful

Table 1. Descriptive Words Associated With Different Accountability Ratios and Differences

non-human resources). The kinds of words that we might use to describe a given social unit are related to R and D in Table 1.

The Need to Feel Worthy

In our simple society, we will assume that individuals and groups of individuals want to consider themselves worthy and they also want others to consider them worthy. We will assume that the need to feel worthy, the need to feel morally justified, involves believing and having others believe that you are really worth the income that you receive. Let us examine some of the reasons why people need to feel worthy, particularly those people with large incomes.

There are, of course, economic reasons for having others believe that you are worthy. A good image is profitable. With a good image, a social unit can more easily maintain and even increase its income. Advertising, as an example, is largely a means of obtaining a better image so that income can be maintained or increased. I don't believe, however, that most people are content with merely having others "fooled" about their worthiness. People want very much to believe that they themselves are worthy.

It often takes a great deal of work and personal sacrifice to acquire a substantial income and people want to believe that it was worth it. If we have worked hard and struggled to reach some degree of economic success within this society; if we have sacrificed enjoyments to become "successful;" if our children have grown up before we could take time away from work to know and enjoy them, to play with them; if we have worked so hard to reach our "position" in life that we find it difficult to relax and to play; then, we need to believe that it was worth it. We need to believe that our work and sacrifices were worth it; we need to believe that our life of struggle and sacrifice was right, it was not meaningless; we will often go to great lengths to reinforce such beliefs.

If we see that our income is substantially higher than the income of the majority of others, if we own a large house, car(s), television, etc. and we are aware of widespread poverty; if our position in society gives us substantial influence over the lives of others, then we need beliefs which justify our superior position. We will tend to accept and support ideologies, myths and beliefs which justify and even sanctify our work, our sacrifices, our status and our economic success (example: "the economic success or failure of a person reflects their own personal worth"). We will associate with people with similar needs and we will affirm to each other the worthiness, and even the righteousness of those ideologies, myths and beliefs which bestow worthiness and even righteousness to our own lives and positions. We will support political candidates who express beliefs and ideologies which give moral worth and meaning to our lives and social positions. We will become indignant when such beliefs are challenged because such challenges are threatening. Without our justifying beliefs, ideologies and myths we might have to say, "No, my life of hard work and personal sacrifice was not worth it, my superior position is not justified;" such words are frightening!

We ourselves want to believe that our lives are meaningful. The anxiety over a meaningless existence is a central concern within the modern existential movement as expressed in art, literature, philosophy, psychology, and theology [7-9]. This paper will assume that the need, desire and concern for a meaningful existence is a major motivation for contemporary human behavior. In the simple society which we have assumed herein, such motivation will involve the desire to identify oneself with the words in Column 1 of Table 1.

The needs of individuals to feel worthy are transferred to the organizations and establishments with which they associate. The higher we rise within an organization, the more control we obtain over human and non-human resources. We receive more authority, higher incomes, more impressive titles and more imposing physical

expressions of our importance (e.g., larger offices, leather chairs, seats at the head of conference tables). Our opinions receive more notice and our positions give our opinions an air of respectability and authority.

The higher we rise within an establishment, the more our own worth is associated with the worthiness of the establishment and its activities, behavior and consequences. People under us recognize our need to feel worthy and our identity with the establishment. They will tend to affirm us and the establishment to further their own advancement. As we rise within an establishment, loyalty within the establishment becomes more and more a primary virtue. Advancement, which becomes a personal affirmation of ourselves, becomes associated with the virtues of loyalty, dedication and commitment to the establishment and to the ideologies, myths and beliefs which affirm the establishment. We look for these virtues in those under us. True, some disagreements are tolerated and even encouraged within the establishment. But dissension which questions the worthiness of the establishment and those who are influential within it or behavior which threatens its income or disagreement, even questions, concerning the ideology, myths and beliefs which affirm the worthiness of the establishment's success; these are behaviors which can lead to suspicion and rejection even if they are motivated by legitimate and noble concerns [10, 11].

The objective of being considered worthy is complementary, but not identical to the objective of making profits, particularly for establishments of high income. For an example, look at cosmetic advertisements. Typically, their primary message is, "It's important and good to look young and beautiful; the way to look young and beautiful is to use cosmetics; therefore, cosmetics are important and good." The competitive message, "Our product is better than our competitor's," appears to be secondary. You would very seldom see advertisements which say something like, "Our product is better than our competitor's because theirs is more likely to cause a skin rash." Such an advertisement would be competitive, but it also would raise doubts concerning the worth of cosmetics in general.

To express the need to feel worthy within our simple society, the following rule will be assumed.

Rule 1: All identifiable social units wish to be located safely within Column 1 of Table 1.

One way to pursue Rule 1 is to argue that in a market system the value of any social unit's behavior, activities and consequences must be at least as great as its income. Thus, if you have high income, you assume that you must be worth it or you wouldn't be getting it. This assumption is particularly appealing to those with high incomes. It seems to me that any assumption as important as this should be subject to close examination. If the assumption is so obviously true, then it should be relatively easy to demonstrate. My response to such an assumption is, "show me." In other words, I don't believe that the desirable properties of market systems should be used as a justification or excuse for avoiding questions of accountability as implied in equations (1) and (2). The credibility of market (exchange) systems is threatened by such implications of moral infalibility. I agree with economist Kenneth Boulding that, "The greatest threat to the exchange system is the claim that it can do everything." [12] "Once a society ceases to examine itself in ethical terms, that society is very likely doomed to stagnation and to eventual decay." [13]

The Inflation of Value

A careful assessment of a social unit's accountability ratio R and accountability difference D are seldom done yet there will often be some general public notion of a social unit's accountability and its position within Table 1. To accommodate this notion in our model, we will introduce two terms:

AR = the apparent accountability ratio of a social unit, and AD = the apparent accountability difference of a social unit.

A second rule can be stated for our simple society which follows directly from Rule 1.

Rule 2: All social units will strive to increase their AR and AD until they feel securely located within Column 1 of Table 1.

Often, it is easier to increase apparent accountabilities (AR and AD) than it is to increase actual accountabilities (R and D). This is particularly true in a competitive system (political or economic) where "good guys tend to finish last." We will include this concept in our model by introducing a new term:

PV = the inflated or phony value of a social unit's activities, behavior and socio-ecological consequences.

We may then say:

$$AR = \frac{V + PV}{I} \tag{3}$$

and:

$$AD = V + PV - I \tag{4}$$

It is often difficult to distinguish between V and PV. As an example, an industry may be conducting research to determine the possible environmental consequences of its activities. This research may have a real value, V. Public relations, however, may inflate the value of this research far out of proportion. An industry may also censure research and data to prevent the distribution of information which it believes may be unfavorable (e.g., information which may decrease its V). On the other hand, favorable research results will likely receive wide exposure. Thus, the released information may have little value because of this bias. The research may even have negative value because it may give a false impression that all is well.

Another way of maintaining a high PV is to disassociate your activities from their undesirable consequences. Look at the pictures in automobile advertisements. You'll seldom see a picture of an advertised car within heavy traffic even though that's how we see most cars. We seldom get advertising messages such as, "Our car looks better in a traffic jam than our competitor's," but let's face it, cars do cause traffic jams.

One of the most effective ways of insuring a high PV is to have people depend upon you and your activities. Those who oppose your activities can then be classified as disruptive. As an example, power producers (public and private) can sell their excess electricity to industries at cheap rates. Soon they need to increase rates to build more power plants to satisfy increasing demands. They obviously can't take the "excess" electricity away from the industries or increase their rates to non-industrial rates because that might shut some industries down and put a lot of people out of work. Generating capacity is increased and if they can get ahead of the "demand," they'll again have "excess" electricity which justifies cheaper rates to industries. Ironically, in this process, energy intensive industries are favored relative to labor intensive industries despite continued unemployment and a shortage of energy resources and this is done in the name of "protecting jobs" (PV!). People who oppose the expansion of generating capacity (for say environmental or resource reasons) or those who oppose the cheaper rates to industries can then be classified as "against the working man" because they "eliminate jobs."

We also could have inflated the accountability ratio and the accountability difference by hiding income, I. Government subsidies can amount to a substantial hidden income. As an example, government funds spent on a supersonic transport, SST, could be considered as a form of subsidy for high income social units which would be able to afford the use of the SST. I suspect that subsidies of high income social units are far less obvious than subsidies of low income social units. While hiding income may be a method of increasing AR and AD, this paper will not include this method in order to keep the model simple.

Income and Inflated Value

If a large number of control certificates are available to you, then you have resources which can serve to inflate your value. You can purchase commercials to tell people how wonderful your activities are; you can make large visible donations to churches and other sanctifying organizations; you can fire people who tend to expose or question your real V [10]; you can hire public relations experts and lobbyists; you can influence the media; and you can hire lawyers to sue or threaten suit against individuals who say really bad things about you. You can also associate yourself with others of high income to form powerful political groups which can work to secure and justify your positions in society. Public agencies with high incomes can provide substantial benefits and services to other influential social units which in term support the worthiness (and continued funding) of the agency [14].

In our simple society, the relationship of income to Rule 2 is given by the following rule.

Rule 3: The ability of a social unit to increase its AR above R and its AD above D is, in general, proportional to its income, I.

Rule 3 is based upon the assumption that a social unit's ability to control information and situations in order to inflate its own value is, in general, proportional to its control of human and nonhuman resources.

An effective way to inflate V is to consider the employment generated (directly and indirectly) by your income as being a value of your social unit's activity. As an example, let us assume that half an industry's income is spent on jobs and each of "their" jobs "creates" two additional jobs. This is a job multiplier of three; some industries (e.g., energy production, automobile manufacturing) may claim or imply even higher job multipliers. Now, let us include these jobs as PV in equation (3). We then get:

$$AR = \frac{V + 0.5(I) + 2(0.5)(I)}{I}$$
 (5)

which leads to:

$$AR = \frac{V}{I} + 1.5 \tag{6}$$

we may similarly obtain:

$$AD = V + 0.5(I) \tag{7}$$

On the basis of equations (6) and (7), an industry with a high income could maintain an AR greater than 1 and an AD greater than zero even though its value, V, was zero or even negative. Thus, the industry would appear firmly located within Column 1 of Table 1 even though its behavior, activities and consequences were questionable, worthless (V equal to zero) or even detremental (V less than zero). When unemployment or the threat of unemployment is a reality for a large portion of the population, the kind of reasoning expressed in equations (6) and (7) becomes more accepted and the more basic questions concerning the justifiable uses of human and non-human resources tend to be neglected.

It may be an economic reality that a given social unit, through its payroll and activities, has significant control over the jobs of many people. But the fact that it has such control cannot be used as a moral justification for having this control. The argument, "we are providing jobs," presumes that the provider of the jobs deserves the control that enables them to provide jobs. They may legally and economically have such controls, but do they morally deserve them? To answer this question, the use of these controls must be honestly examined relative to fundamental moral beliefs and commitments. To say that a given activity is not morally justified does not mean that the individuals involved should be abandoned without jobs or income, rather it means that they should be involved in more justifiable tasks. Now it is true that in real life situations, other employment opportunities may not be available for these individuals and we may be forced to accept a given activity because we do not wish to see individuals hurt. In more illustrative words, we may be forced to tolerate a given activity because of the welfare and safety of hostages, but that does not mean that we must assume that such an activity is morally justified simply because the hostages are cared for. We face a grave danger of becoming a hostage economy.

A common way that PV is protected and accountability is avoided is the argument, "I have the right to use my control certificates in any way that I choose!" Such statements are particularly common with respect to certificates of land ownership. This kind of argument considers control certificates to be a form of indulgence. That is, they free the certificate holder of certain moral accountabilities. This ideology deserves a name. I suggest that it be called Tetzelism in honor of Johann Tetzel who, in the early sixteenth century (immediately prior to the Reformation), was a master salesman of indulgences. An alternate view of control certificates such as deeds is that they are stewardship agreements with moral responsibilities for all parties involved.

Apparent Accountability and Income

We will mathematically express Rule 3 in the following simple equation:

$$PV = eI (8)$$

in which

e = the inflated value efficiency: the amount of PV generated per unit I.

The magnitude of e will depend upon many factors such as the available media, the fraction of income, I, available for value inflation and the nature of the activity. We may now combine equation (3) with equation (8) to obtain:

$$AR = \frac{V + eI}{I} \tag{9}$$

which can be reduced to:

$$AR = \frac{V}{I} + e \tag{10}$$

Equations (4) and (8) may be combined to obtain:

$$AD = V + (e-1)I \tag{11}$$

Equations (10) and (11) are quite interesting. If I is substantially greater than V and e is positive as we might expect, equation (10) shows that the apparent accountability ratio, AR, becomes independent of a social unit's value, V. Thus, the opinions of a social unit, expressed in Table 1, become independent of its behavior, activities and consequences if its income is sufficiently high. Equations (5) and (6) provide an example. The apparent

accountability ratio, equation (10), then depends primarily upon the inflated value efficiency, e. Modern technology has provided substantial means for realizing high inflated value efficiencies. Television, as an example, has a high potential as an efficient value inflator. Because of television, oil companies, as an example, can broadcast every evening into nearly every home in America a series of beautiful and polished messages dealing with their ecological concern, patriotism, concern for Alaskan Native Americans, self sacrifice, ingenuity and social idealism.

We also see from equation (10) that the only way AR will obtain a value less than one, if e is greater than one and I is high, is if V obtains a very high negative value. That is, a social unit with a high income and a high value inflation efficiency would have to produce a disasterous outcome (large negative value of V) before it would be located within Columns 2 and 3 of Table 1. Thus, a decrease in V may unfortunately be offset by an increase in e and I until V becomes catastrophic.

We may also make some interesting observations from equation (11). If e is greater than one, income, I, has a positive effect on AD regardless of value, V. Equation (7) provides an example. The higher your income, the higher your AD becomes (as long as you keep your e up) and the more firmly established you become within Column 1 of Table 1. In other words, if we are influenced by equation (11), we use Column 1 words for high income social units without even seriously examining the value of their actual behavior, activities and consequences and comparing this value to their income. Thus, we associate high income with words such as worthy, beneficial, productive, respectable and proper. We assume that people get what they are worth and we think it rude (an invasion of privacy) to ask questions to see if this is really true. The question of accountability then becomes reversed. Instead of asking, "What have you really done to deserve your income?," we find ourselves asking, "What's wrong with those with low income?" Accountability is thus directed away from those who have significant control of human and non-human resources to those who have very little control.

We also find from equation (11) that with a high income and a high inflated value efficiency, a social unit will be unfortunately deemed worthy until the value of it's behavior, activities and consequences becomes catastrophic (large negative V).

Equations (10) and (11) imply that high e levels would encourage certain attitudes within our model society. "Get what income you can, any way that you can, just don't get caught because your income will then be restricted" (you can't get many control certificates in jail). Law would then become, not an expression of society's values, but rather an obstacle and a tool which must be pushed to its limits and altered when opportunities arise for increased income (increased control). For those with little or no control to alter the law, breaching it would appear as an alternative. Honest concern for the worthy use of human and nonhuman resources and the just distribution of control would become lost and distorted in the struggle for increased income. It would appear therefore, that decreasing the levels of e within our simple society would be a worthy objective.

It appears from our model that with moral accountability subverted, moral awareness becomes distorted and transformed into self-serving rhetoric. I suspect that moral accountability and moral awareness are aspects of the same process and the distortion of the former leads to the distortion of the latter.

The Object of Blame

It is important to realize that accountability, as I have used this term, is not necessarily the same as blame. As an example, we may find that the activities of a particular business or industry cannot be morally justified (let's assume R is significantly less than one and D is negative). Let's say that renewable resources are being over-exploited and eliminated. Let us also assume that such behavior cannot be justified on the basis of our moral beliefs and commitments despite some real benefits of such behavior. Who are we to blame? Certainly we can blame the business, but we can't only blame them. We must also blame the customers who purchase the products. The business may feel that it is trapped. Its behavior may be legal and proper with respect to business ethics. If the business decides not to over-exploit the resources, it may well place itself at a competitive disadvantage. Customers may similarly feel trapped. They may wish, as an example, to buy a newspaper that didn't waste so much paper on advertising but such newspapers may not be available. Besides, the customer reasons, "I have to pay for the advertising in the form of higher prices (a private sales tax) whether I buy the paper or not." Both the business and the customer feel trapped. Both feel that, whatever they do individually, it won't make much of a difference. "If I don't do it, someone else will." "Why should I stop when nobody else will?" Such statements are common to a wide range of concerns. Business and customer share in the blame, but the blame must also be directed

at the system which contains them both. If the political-economic system makes it profitable to do things which cannot be morally justified, then it deserves blame and it ought to be improved. But if improvement is to responsibly happen, people must honestly, humbly and openly examine their most fundamental beliefs and commitments. They must relate these beliefs and commitments to the social systems that they are in and the life styles, attitudes, and behaviors which that social system encourages. They must listen to others who are different from themselves, and they must be willing to learn from them. An honest understanding of the past, freed from concealments and evasions is also needed even though it may be painful. Historical honesty assimilated in a healing manner can lead to a more meaningful future [15].

Implications

While this model has focused upon economic forms of control, its implications extend to other means of control (administrative, political, bureaucratic, religious, military, etc.). This model, like all models, is a simplification of real world systems. Simplification, by itself, is not a sufficient or even good reason for rejecting the implications of a model. Indeed, simplicity can be a desirable quality of a model because it gives special emphasis to particular concerns while minimizing the camouflage that peripheral concerns often provide. The worth of a model rests on the meaningful real world insights that it provides. I believe that this model provides meaningful insights in a direct and straightforward manner.

If a society does not honestly and openly examine its values relative to its behavior; if it does not question the moral implications of its distribution of control; and if it does not seriously attempt to adjust itself so that the distribution and use of control tends to conform to its most cherished and honest beliefs; then control will provide its own moral justification. The need to feel worthy of control provides the motivation and the control itself provides the means.

If accountability within a society is directed away from those with the most control toward those with the least control; if honest questions concerning the worthiness and legitimacy of authority and control are treated as inappropriate, disrespectful and even disloyal; if a society has the habit of quickly disregarding the idealistic because it is not economically, politically, institutionally or idealogically acceptable; and if the beliefs and ideologies of a society tend to justify established authority and control rather than

make moral demands upon them; then, we can reasonably suspect that control has substantially protected itself from the honest accountabilities of the most cherished human beliefs. When this occurs, there are substantial reasons to doubt that the direction of socio-ecological evolution will be somehow better because of planning and management.

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