<u>The Basic Problem is Still Survival, And an Evolutionary Ethics is Indispensable</u>

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(Prepared for the Complexity, Ethics and Creativity Conference, London School of Economics, September 17-18, 2003)

Abstract: *Biological survival and reproduction remains the fundamental, ongoing, inescapable challenge for all living organisms, including humankind; it is a problem that can never be permanently "solved." Indeed, an estimated one-third of the current human population world-wide is at serious risk from malnutrition and/or severe illnesses and disabilities, and there are many prospective future survival "megathreats," from rapid climate changes to water resource shortages and disease pandemics. Moreover, the survival problem is multi-faceted. As documented by the "Survival Indicators" program, there are at least 14 broad domains of "basic needs" for the human species, all of which constitute survival imperatives. Accordingly, every complex society represents – quintessentially – a "collective survival enterprise." As Adam Smith fully appreciated, we are (by and large) dependent for the satisfaction of our basic needs upon the skills and efforts (and ethics) of many other people. Indeed, as modern societies become increasingly interactive and interdependent, each of us must depend on an ever-widening "life-support system." Thus an evolutionary ethics – an ethics that serves our common survival and reproductive interests – is indispensable; it is essential to the functioning of a complex modern economy and society. In addition, it happens that there is also strong support for the role of ethics within evolutionary theory itself. Evolutionary biology has recently experienced a major paradigm shift as "group selection" theory, and in particular Darwin's own theory about the role of organized social groups in human evolution, has reemerged and gained support. Implicit in this new paradigm is a revival of the age-old concept of the "public interest" and a political ideology that is focused on the concept of "fairness." What I call a "fair shares" ethic entails three normative principles that collectively address the competing moral claims within any society for (a) meeting basic needs, (b) rewarding "merit," and (c) ensuring reciprocity/equity. (There is also increasing scientific evidence that fairness is a psychologically-grounded norm in human societies.) It could also be called "enlightened capitalism."*

Introduction: "The Future is Not What it Used to Be"

You could legitimately call it a "megathreat". In a scholarly but readable book that should have set alarm bells ringing – literally around the world – the distinguished geoscientist, Richard B. Alley, warned us recently that the accumulating scientific evidence points to the likelihood, in the not too distant future, of an ecological disaster. He was not talking about global warming but something much worse.

Alley is one of the world's leading climate researchers and was the chairperson of a recent National Academy of Sciences study of global climate change. The title of Alley's book says it all: *The Two-Mile Time Machine: Ice Cores, Abrupt Climate Change, and Our Future* (2000). Alley concludes that humans have enjoyed an unusually benign and stable climate pattern during the past 10,000 years. In the past, climatic turmoil has been more the rule. To quote Alley:

> Large, rapid, and widespread climate changes were common on Earth for most of the time for which we have good records...While our [remote] ancestors were spearing woolly mammoths and painting cave walls, the climate was wobbling wildly...The climate jumped between cold and warm not over centuries, but in as little as a single year....The current stable interval is among the longest on record. Nature is thus likely to end our friendly climate, perhaps quite soon....What should we do about this? The simple answer is that I don't know (pp.3-4, 185).

A key finding of this research bears repeating. The end of our relatively benign global climate pattern could happen "in as little as a single year." And, as Alley says, we haven't a clue at present about how to prepare for it.

Perhaps you might be predisposed to doubt such Cassandra-like projections. If so, consider this. Even during the past few thousand years of relative climate stability, growing evidence suggests that there have been recurrent periods of prolonged regional "megadroughts", and that some of these were very likely responsible for the sudden, mysterious disappearance of many ancient civilizations – such as the Akkadians, the Old Kingdom in Egypt, the Harappan civilization of the Indus River valley, the Classic Mayans, the Anasazi, and others. Centuries-long climate disruptions have been common, even in the recent past. Indeed, the "Little Ice Age" that besieged Europe only a few centuries ago provides a well-documented example.

In this disturbing light, consider the possible fate of the state of California, in the U.S.A. With its rich soil, warm climate and the longest growing season in the world, California currently produces about one-quarter of America's total output of fruits and vegetables, along with a significant percentage of various grains and dairy products. California also has a population of about 35 million people, which is projected to grow to 50 million by 2025. Unfortunately, California is one of the areas that has been susceptible in the past to severe, recurrent megadroughts. If (or rather when) another such megadrought occurs in this region, it will very likely produce a global food crisis – among other things. In this age of international agricultural markets, many other countries besides the United States could be hit with soaring food prices and severe food shortages.

Even if you are inclined to discount the threat of drastic climate changes, a number of other mega-problems are already visible on the horizon. For instance, the world's stock of fresh water is being depleted at a rate that will soon threaten our food supply, simply because a major share of the world's agriculture depends on artificial irrigation. Drinking water and water for sanitation and industrial uses are also threatened. According to the journal *Nature,* even now some 1.3 billion people (20% of the global population) do not have safe drinking water, and within the next 50 years population growth will create the demand for a 50-100% increase in demand, a staggering challenge. And this says nothing about terrorism and weapons of mass destruction, or disease epidemics, or the litany of current environmental problems.

So the question is: what can be done to prepare for such megathreats? Unfortunately, there is no way we can predict for certain which major catastrophes could happen in the future, much less where, or when. As the writer Barbara Holland (1999) wryly commented in an article about our perennial hunger for prophets: "The term 'foreseeable future' is an oxymoron." This is precisely why the world community urgently needs to develop a "strategic plan" for the planet Earth. (I am partial to the economist Kenneth Boulding's term, "spaceship Earth," because it underscores our profound dependence on an immensely complex global system – ecological, technological, economic and political – that we cannot take for granted.)

Some neo-isolationists may resist the idea of a global strategic plan. Perhaps they cling to the old, nationalistic notion that the rest of the world is not their concern. Global thinking, they claim, smacks of altruism and one-world idealism. But this attitude is at once ill-informed and naive. Globalization means "interdependence," for better or worse, and we can no longer afford the luxury of ignoring it. The latest evidence of this, perhaps, is our close call with the SARS epidemic. By focusing systematically on the full range of potential threats and their varying global impacts, we may be able to understand more clearly how we might be affected, and why it is in our collective self-interests to care and to mobilize resources, or at least contingency plans, for dealing with them. (For an elaboration on this theme, see Corning 2003a.)

Evolutionary Ethics as a Normative Foundation

So what does "ethics" have to do with planning for – and meeting – our existential survival challenges? The answer, in a nutshell, is that any effort to develop a strategic plan for an uncertain future – not to mention dealing with the many problems that are already on the global agenda – should be grounded in a clearly defined normative framework; it is important to have an explicit set of underlying values, and objectives, to guide the global strategic planning process. In private-sector strategic planning, the goals are generally clear and unambiguous – namely, to grow the business and improve its profitability. But these values are hardly adequate where the challenges relate to our long-term survival. We need a normative framework that is related to the fundamental challenges that we face, and I believe that an evolutionary approach can provide a foundation for such a framework. Let me briefly explain why.

"Ethics" is a term that has been defined in many different ways over the years and has been much-debated. Here I will use the term in a pragmatic (and instrumental) way to refer simply to the

norms or rules of conduct that govern our economic, social and political relationships. In these terms, some ethical precepts may be informal, unstated and customary. Others may be very explicit and may even be codified in formal rules and laws. But all are distinguished by the fact that they impose some cost on the actor (though there may be compensating benefits), along with immediate benefits to the recipient(s). Otherwise it is indistinguishable from pure self-interest. Moreover, ethical precepts and actions may have multiple "levels". Some are concerned only with interpersonal relationships. Others are concerned with the collective actions of groups, or institutions. Still others involve the behaviors of governments and, indeed, the conduct of entire nations toward one another. And, of course, all of these levels may interact. "Evolutionary ethics" is relevant to all of these levels, but we are particularly concerned here with its relationship to the "social contract" in a given society.

It seems that evolutionary ethics is in the air these days. During the past few years, there has been an outpouring of publications on this subject, including many new books (as well as a number of books on Darwinism and religion) and countless journal articles. Indeed, an Internet search using the term "evolutionary ethics," yielded some 65,400 hits. And at a conference that I attended recently in the U.S., there were no less than a half-dozen panels devoted to various aspects of the subject. What distinguishes "evolutionary ethics" from more traditional approaches to the subject is that it is grounded in the fundamental premise that human ethical systems can be explained – and justified – in terms of evolutionary principles. Our ethical systems are viewed as being products of our evolutionary heritage and are genetically undergirded; they are more than simply cultural inventions, or the actualized ideas of ancient philosophers.

What is *not* so widely appreciated, though, is the fact that the debate over evolutionary ethics goes back to Darwin's day. In fact, the roots of this debate trace back even to the ancient Greeks. Since this age-old debate also lies at the heart of our current ethical predicament, some historical background is relevant here.

Broadly speaking, there have been two sharply-opposed camps, or "schools of thought," on the subject of evolutionary ethics, which has mirrored two radically different interpretations of the evolutionary process itself, and of the nature of human societies. One of these schools has adhered to what could be called "Darwin's Darwinism." Contrary to the many misinterpretations of Darwin's views over the past century and a half, Darwin was actually quite comfortable with the idea that functionally organized, interdependent "groups" could be units of selection in evolution; natural selection is not exclusively focused on individuals. In his book on *The Descent of Man* (1871), Darwin applied this model specifically to the evolution of humankind. He concluded that it was our sociality that had contributed the most to our evolutionary success and that morality and the "social instincts" are rooted in human nature. Darwin also argued that evolving hominid groups enjoyed mutually beneficial, win-win cooperative relationships that served to constrain individual competition and promote group-serving values. As Darwin put it:

> Selfish and contentious people will not cohere, and without coherence nothing can be effected. A tribe rich in [intelligence, courage, discipline, sympathy and fidelity – as he noted earlier] would spread and be victorious over other tribes. But, in the course of time, it would...be, in its

turn, overcome by some other tribe more highly endowed. Thus the social and moral qualities would slowly tend to advance and be diffused throughout the world (p. 148).

Darwin himself did not venture explicitly into the realm of evolutionary ethics, but one of his important contemporaries did. It was the polymath and social theorist Herbert Spencer — considered by many in the 19th century to be the preeminent thinker of his age — who was in fact the founding father of evolutionary ethics. It was Spencer, not Darwin, who coined the slogan "survival of the fittest." And it was Spencer, in his early diatribes against the power of the "state" as a young ideologue and polemicist, who inspired Social Darwinism.

However, Spencer's views also changed as he matured, and in his monumental ten-volume *Synthetic Philosophy* (which spanned four decades), Spencer advanced a more balanced view of society and ethics. Following Darwin's lead, Spencer grounded his paradigm in the recognition that human societies are based on cooperation, not competition: "Cooperation...is at once that which cannot exist without society, and that for which society exists," we wrote in *The Principles of Sociology* (1874-75). "The motive for acting together, originally the dominant one, may be defense against enemies; or it may be the easier obtainment of food, by the chase or otherwise; or it may, and commonly is, both of these" (Vol. II, 1, p. 224).

Spencer viewed society as a utilitarian instrumentality — a system of exchanges and mutual benefits that arose out of the "struggle for existence" (in Darwin's term). Moreover, the "progressive" development of human societies over time was the result of an *interaction* between what would now be called ecological, psychological, and socioeconomic forces, including both cooperative and competitive (or even antagonistic) relationships (Vol. I,1, pp. 14-15).

One aspect of Spencer's formulation should be stressed, namely, that he pointedly suggested a basis for resolving one of the more vexing problems in social theory — the nature of the relationship between the individual and society, and the causal potency of each in social behavior and social change. To Spencer, human nature — our psychological propensities and mental faculties — and society are involved in a co-evolutionary process: "The phenomena of social evolution are determined partly by the external actions to which the social aggregate is exposed and partly by the nature of its units [individuals]...observing that these two sets of factors are themselves progressively changed as society changes" (Vol. I, pp. 435-6).

Accordingly, Spencer's "science of ethics," which established the foundation for what later became "evolutionary ethics," was derived from his understanding about the nature of a society. As articulated in *The Principles of Ethics* (1892-93), the final two-volume unit of his encyclopedic opus, the "science of right living," as Spencer called it, consisted of an application of the scientific method to the problem of determining which ethical principles and moral precepts would best be able to harmonize a given society at its particular stage of evolution. The criteria for evaluating ethical issues should be their consequences both for a society and its members, recognizing their interdependence:

> So that from the biological point of view, ethical science becomes a specification of the conduct of associated men who are severally so constituted that the various self-

> preserving activities, the activities required for rearing offspring, and that which social welfare demands, are fulfilled in the spontaneous exercise of duly proportioned faculties, each yielding when in action its quantum of pleasure; and who are, by consequence, so constituted that excess or defect in any one of these actions brings its quantum of pain, immediate and remote (Vol. I, p. 100).

In other words, ethical prescriptions and sanctions must be tailored to the results that they are likely to produce in specific contexts with respect to the ultimate purpose of a society — the greatest happiness (broadly interpreted) of the greatest number, but with an appreciation also for the fact that individual satisfactions in complex societies are both biologically based and very often interdependent; there is also a social welfare, or"public interest" that encompasses the interests that we hold in common. Indeed, Spencer invented the term "super-organism" as a way of characterizing this property of an organized society. Spencer's point was that superorganisms, as well as individuals, can be discrete evolutionary units. Of course, Spencer was not really breaking new ground here; the so-called organismic analogy can be traced back in social theory at least to the writings of Plato and Aristotle, who emphasized the role of the community (the "*polis*") in providing for our basic needs (see below).

"Survival of the Fittest"

The second school of thought in evolutionary ethics has adhered to an individualistic, egoistic (or sometimes "realist") approach, and it too can be traced back to ancient Athens – to the Sophists, the Cynics, and the Epicureans (their very names give the game away). However, the champion of this model in the 19th century (surprisingly enough) was the biologist Thomas Henry Huxley (dubbed "Darwin's bulldog" for his vociferous public defenses of Darwin's theory), who sharply contradicted his master on the issue of evolutionary ethics.

In his famous (some say infamous) Romanes lecture of 1893, which shocked some of his listeners, Huxley (1993[1893]) disavowed Darwinism as a basis for ethical principles. Huxley characterized evolution (what he referred to as the "cosmic process") as an arena of "relentless combat" – a Hobbesian "war of every man against every man." Huxley also called nature "a gladiators' show" in which the losers go to the wall. In other words, Huxley painted himself into an ethical corner. By denying the role of social life as a form of adaptation in evolution, Huxley undermined any evolutionary justification for social ethics. Indeed, he was forced to argue that our only hope was to use cultural contrivances (or what he called the "the state of art") to counteract what he referred to as "the state of nature." But this begged the question: why bother? Why tamper with the "progressive" trend of the natural order? This is exactly what the Social Darwinists argued.

The definitive rebuttal to Huxley's "tooth and claw" model of evolution was advanced by one of Huxley's own contemporaries, the philosopher and educator John Dewey (1993[1898]). Dewey's argument is still relevant to the current debate over evolutionary ethics:

> I have discussed [Huxley's metaphor] in the hope of enlarging somewhat our conception of what is meant by the term "fit"; to suggest that we are in the habit of interpreting it with reference

> to an environment which long ago ceased to be. That which was fit among animals is not fit among human beings...because the conditions of life have changed...The environment is now a distinctly social one, and the content of the term "fit" has to be made with reference to social adaptation...We have then no reason here to oppose the ethical process to the natural process (p. 100).

Another of Huxley's critics, Leslie Stephen (1993[1893]), pointed out that morality can be based on purely prudential grounds. Following Spencer's reasoning, men may find that peace is preferable to war, that the division of labor and reciprocity can be mutually advantageous and that a personal morality can be derived from our dependence on others for the meeting of our needs. A set of ethical rules — and a system of enforcement designed to prevent anyone from cheating — are in our own best interest. Stephen concluded: "An individualism which regards the cosmic process as equivalent simply to an internecine struggle of each against all must fail to construct a satisfactory morality, and I will add that any individualism which fails to recognize fully the social factor, which regards society [merely] as an aggregate instead of an organism [i.e., Spencer's "super-organism"], will, in my opinion, find itself in difficulties"(p. 88).

The sad fact is that, over the course of the past 30 years, we have had to relive this nineteenth century ethical debate. Neo-Darwinism, which became the dominant evolutionary paradigm in the 1970s and 1980s, virtually rejected the role of group selection as a "mechanism" in evolution. Some theorists even denied the very existence of higher level wholes (superorganisms); a society is nothing more than an epiphenomenon, a reflection of the many individual motives and actions.

Like the ancient Sophists and Epicureans, the Neo-Darwinists embraced an individualistic, "selfish gene" model of evolution. As the popularizer of this model, the biologist Richard Dawkins, put it: "I think 'nature, red in tooth and claw' sums up our understanding of evolution admirably" (1989[1976], p. 2). One of the chief casualties of the Neo-Darwinian "revolution" was Darwin's own explanation for human evolution, along with his reasoning about our social and moral faculties. Thus, for example, the philosopher Helena Cronin, in a popular 1991 book, *The Ant and the Peacock*, came to the conclusion that Darwin "lets us down."(p. 327). Why so? Because he relied on the supposedly flawed concept of group selection in explaining human evolution. Likewise, the science writer Robert Wright, in a provocative popularization about the new field of evolutionary psychology called *The Moral Animal* (1994), wrote off Darwin's explanation of humankind altogether: "The more you think about it, the less likely it seems." Despite the book's affirming title, Wright concluded that we are not moral animals after all but only "potentially" so; what passes for morality is "ruthlessly" subordinated to our self-interests, he declared.(p. 186).

For most of the past 30 years, the selfish gene model has been predominant in evolutionary theory. However the tide has recently undergone a major shift. It is now clear that the rejection of Darwin's Darwinism, and of Spencer's evolutionary ethics, was largely the result of some serious misconceptions. One misconception was that cooperation and sociality depend on "altruism" and are therefore severely constrained in the natural world. To many of the early Neo-Darwinians, it seemed that only cooperative behaviors favoring close "kin"(and maybe "reciprocal altruism") might be able to

circumvent the theoretical obstacles to cooperation, since group selection was widely viewed as being impotent. The second misconception was that true ethics necessarily requires altruism; enlightened self-interest does not count. In short, it was a classic double bind. (This episode is discussed in some detail in Corning, 2003b.)

Recall how Spencer's ethical vision finessed this problem. In effect, Spencer argued that an ethical system can be based on "prudential" grounds, or enlightened self-interest. Spencer's argument was hardly new, of course. It can be traced back at least to the Greek Stoics. Spencer's contribution was to relate enlightened self-interest to the biological problem of survival and reproduction and to assert that individual interests and the "public interest" were not necessarily incompatible or opposed to one another; they can often be harmonized.

The crucial theoretical issue here was identified by Leslie Stephen in his rebuttal to Huxley's lecture. If a society is viewed merely as an aggregate of individuals who have no common interests, and no stake in the social order, then why should they care? But if a society is viewed — more realistically — as a complex, interdependent "collective survival enterprise," then each of us has a vital, life-and-death stake in the viability and effective functioning of our society, whether we recognize this fact or not. Another way of putting it is that much of our public ethics, and the cultural institutions that we have evolved for encouraging — and enforcing — our ethical principles and rules, are also an expression of evolutionary ethics. The two are not radically different spheres.

Yet, in hindsight, Spencer's evolutionary ethics, while necessary, was also insufficient. Who, after the tragedy of 9/11, can doubt the reality of altruism as a significant aspect even of large, complex human societies. Americans grieved even for those they did not know and donated billions of dollars to help their families. Moreover, there is now much research showing that humans do indeed seem to have an innate "moral sense." For instance, a sense of "fairness" seems to have a strong, if imperfect, pull on our preferences and our conduct, to the point that we may even be willing to make sacrifices on its behalf – thus contradicting the classical, "rational choice" model in economic theory. (This is documented in some detail in Corning, 2003c. See also Katz, 2002.)

How can this be? What adaptive advantage could a sense of fairness have bestowed on our remote Pleistocene ancestors, such that it was "blessed" by natural selection and incorporated into the undergarments of our evolving human nature? The most likely explanation, in a nutshell, is that the principle of fairness came to play a central role in reconciling conflicting interests within our ancestors' groups, bands, and tribes. Darwinian group selection was most likely a powerful supplement to Spencer's prudential economic calculus. To quote again Darwin's observation in *The Descent of Man*: "A selfish and contentious people cannot cohere, and without coherence nothing can be effected." Competition may be an engine for enterprise and economic progress, but mutually beneficial cooperation is the fundamental organizing principle underlying all human societies. Indeed, there is mounting evidence that our sociality and readiness to cooperate far exceeds that of any other primate. (Again, see Corning 2003c; also Katz, 2002.)

The result of this sea change in evolutionary theory has been a major revival of Darwin's

Darwinism. Group selection has once again become respectable as a potential evolutionary mechanism. (It commonly goes under the heading of multi-level selection theory.) The "bottom line" of this paradigm shift in evolutionary theory is that there is now strong theoretical support for the claim that morality and ethics have played an important role in human societies, perhaps for millions of years – as Darwin, Spencer, Dewey and others long ago asserted. (Three recent books that have made a compelling case for the role of ethics in human evolution are *Unto Others: The Evolution and Psychology of Unselfish Behavior* (1998), by philosopher Elliott Sober and biologist David Sloan Wilson; David Sloan Wilson's *Darwin's Cathedral: Evolution, Religion and the Nature of Society* (2002); and *Hierarchy in the Forest*: *The Evolution of Egalitarian Behavior* (2001), by the evolutionary anthropologist Christopher Boehm.)

The most important consequence of this shift in evolutionary theory, for our purpose, is that it provides a basis for reasserting the old-fashioned concept of the "public interest." Human societies are indeed superorganisms whose collective interests may sometimes transcend (though hardly nullify) the interests of their individual members. Moreover, it is plausible that the superorganism represents an ancient adaptive strategy in human evolution that may go back millions of years (reviewed in Corning, 2003b). This theoretical shift has been timely (to say the least), because the existential problems and the megathreats that we currently face require the re-assertion of an ethical framework that goes beyond an individualistic, "selfish gene" paradigm – and the sometimes myopic workings of the marketplace. However, any new, 21st century version of the "public interest" must be anchored in a clearly defined normative framework – a set of concrete ethical "guidelines". We must be specific about what the public interest entails, otherwise it will amount only to a hortatory, hand-waving exercise.

Toward a 21st Century Evolutionary Ethics

Accordingly, I would like to propose four basic propositions (core assumptions) that, I believe, are vitally important for constructing a 21st century evolutionary ethics. These propositions are as follows:

1. The basic, continuing, inescapable problem for humankind is survival and reproduction; this is a problem that can never be permanently solved.

2. The ongoing survival challenge entails a broad array of "basic needs" that can be empirically documented; they are imperatives for survival.

3. An organized society is quintessentially a "collective survival enterprise." Whatever may be our illusions, aspirations, or personal agendas, the fundamental purpose of a human society is to provide the wherewithal for meeting our basic survival needs. Indeed, the vast majority of human activity, even in complex modern societies, is devoted either directly or indirectly to meeting basic needs.

4. In complex societies, the survival enterprise is inextricably interdependent in nature (it can properly be characterized as a superorganism) and is becoming ever more so. To quote that great free market advocate, Adam Smith: "In civilized society [man] stands at

> all times in need of the co-operation of and assistance of great multitudes...man has almost constant occasion for the help of his brethren" (1964[1776], Vol 1, p. 12).

Let me digress here, for a moment, to stress something that may not be so obvious. The term "basic needs" is often treated in social theory as being *relative*, or a matter of personal preference. But from a biological/survival perspective, this is absolutely false. Basic needs can be strictly defined in biological terms as *requisites* for the normal functioning of an organism, and a failure to meet these needs will cause more or less severe *harm* to its chances for survival and reproduction. Moreover, our basic needs constitute a much bigger and more encompassing challenge than is commonly associated with the term. There is a research program at our institute called the Survival Indicators Program, which has documented and empirically validated at least 14 broad "domains" of basic survival needs in humankind. (They are referred to as basic needs "domains" because many of them in fact encompass an array of different elements. An obvious case in point is the variety of nutrients required for a balanced diet.) This research program is discussed in depth in Corning, 2000. Here is the full list of 14 basic needs.

Survival Indicators: The 14 "Basic Needs"

1. Adequate Nutrition

2. Fresh Water

3. Thermoregulation

4. Waste Elimination

5. Respiration

6. Sleep

7. Mobility

8. Physical Safety

9. Physical Health

10. Mental Health

11. Social Communications

12. Social Relationships

13. Reproduction

14. Nurturance for Offspring

Although it is not possible to "unpack" this list here (a detailed discussion can be found in the article cited above), let me provide one illustration. Thermoregulation – the maintenance of body temperature within a narrow range – is unequivocally a basic need that, in fact, occupies a considerable share of the time, energy, resources, technologies and economic activities of human beings world-wide. The technologies range from simple wood fires to central air conditioning, and from hand-held fans to knitted sweaters. Indeed, even some so-called luxury items, like fur coats or ice-makers, may

nevertheless also serve our basic needs.

It should also be noted that, in complex modern societies, there are many context-specific "instrumental needs" as well. As the term implies, many of these may be equally essential to meeting our basic, biological needs. However, these instrumental needs may vary widely. For instance, exogenous energy sources represent an almost universal instrumentality for satisfying various human needs, though the precise form, specific uses and required quantities obviously vary greatly. Finally, it should be emphasized that these needs are not subjective; they are eminently measurable, and so are the consequences of a shortfall in meeting them.

Returning, then, to the four core assumptions that were cited above, I would argue that they are not gratuitous, or wishful thinking, or a product of fuzzy-headed idealism. They are "truth claims" that are subject to validation in accordance with the canons of science. Contrary to former Prime Minister Margaret Thatcher's famous line: "there is no such thing as a society," the definitive response is that a society exists when people believe it does and act accordingly – and vice versa. It is ultimately a matter of choice – an empirical question.

The "public interest," then, is not a chimera, or an empty catch-phrase, or an unattainable ideal. Its "content" consists – quintessentially – of the ability of a given society, and its economy, to assure the basic survival requisites for a population, not just for today and tomorrow but also for generations yet unborn. It is "public" in nature because it is the commonly-shared interest of the vast majority of the members of any society, and because we are intensely interdependent in pursuing the satisfaction of these needs.

However, it is not sufficient merely to specify the overarching goal of the public interest. It is also vitally important to spell out the ground-rules – the normative criteria – that should govern the day-to-day workings of the collective survival enterprise. I would propose that a revitalized, 21st century evolutionary ethics should be based on the concept of "fairness," an analogue of the age-old concept of "social justice." As noted earlier, fairness appears to have psychological roots in human nature itself – though it must always contend with the countervailing pull of selfishness and greed ; the dualities in human nature an inescapable reality.

In an era marked by unapologetic increases in the gap between the rich and the poor, coupled with aggressive political attacks on the welfare state, the ancient, much debated concept of "justice" has been deeply challenged (see the reviews in Miller, 1976 and Pettit, 1980). To be sure, the concept of justice still has a secure place within our legal system. But "social justice" involves something more. Though it is a term that has invited many different definitions, social justice commonly refers to the distribution of substantive benefits among the members of a society.

The concept can be traced back at least to Periclean Athens. To Plato, in his classic dialogue the *Republic,* justice is not primarily concerned with some higher metaphysics, or a tug-of-war over our rights as individuals. It is concerned with equitable rewards for the proper exercise of our abilities and our calling, and our conduct, in a network of interdependent economic relationships. Moreover, and

this point is often overlooked, Plato recognized that social justice is grounded in our basic needs (For elaboration ion this, see Corning, 2003d.)

Aristotle, Plato's most famous student, supplemented his mentor's views in some very important ways in his towering treatise, the *Politics*. But most important for our purpose, Aristotle also provided a classic definition of social justice: "giving every man his due." There have been countless debates through the centuries over what Aristotle meant by the word "due". But a common sense interpretation is that the rewards provided by society should be proportionate to a person's contributions to society. It does not mean "equality," otherwise Aristotle would have used that word. Rather, it means an equitable portion — a "fair share."

Accordingly, a normative framework based on the principle of "fair shares" has three empirically-grounded sources of justification. (Space limitations preclude a full discussion here, but see Corning, 2003c.) To summarize the argument: (1) it is an essential prerequisite for the stability and ultimate viability of the political order; in game theory terms, people are very likely to "defect" from the existing political order if their survival is threatened while others enjoy a huge "surplus" of resources; (2) a norm of fairness strikes a balance between the inescapable *equalities* in society, namely our basic needs, and the inevitable *inequalities* in inherited wealth, talent, risk-taking and hard work; and (3) it meshes with a deep psychological sense of fairness, rooted in our evolved human nature, which goes to the very heart of the enduring problem of how to secure political "legitimacy". In fact, fairness is our chief weapon in the age-old war with the centrifugal force of political alienation and social conflict. Life may be unfair, as John F. Kennedy famously proclaimed, and "might" may often prevail. But that doesn't make it right, and we can tell the difference.

The philosopher John Rawls(1972), in his celebrated – and much-debated – theory of "justice as fairness," arrived at a somewhat similar place, albeit by a very different route. He too tried to wrestle with the undeniable fact of inequalities coupled with the existential needs of the least advantaged. Rawls did not succeed in convincing the utopians, who insist on radical equality by one means or another. Nor did he convince some libertarians, who are in denial about our inextricable interdependency and do not recognize any social obligation to the disadvantaged. But Rawls did strike a chord, whatever the flaws in his fingering, with a broad spectrum of the "fair-minded" — those who seek a middle-way between the revolutionary agenda of radical egalitarian socialists and the failed promise of "natural justice" purveyed by the *laissez faire* capitalists (or worse, the sanguinary "survival of the fittest"ethics of the Social Darwinists). Rawls's instincts were correct. There is a middle-way, and it has a biological foundation.

Fair Shares: A Synopsis

Two distinct and frequently competing moral claims arise out of the imperatives of human nature and the nature of human society as a collective survival enterprise. One is basic needs, or distributive equity, and the other is "merit," or giving every person his, or her, due. In the fair shares paradigm, our

basic survival needs take precedence, but they do not nullify the claim to merit; they impose a constraint. Thus, there is nothing fundamentally new about this paradigm. However, a fair shares approach explicitly recognizes the validity of both of these often competing moral claims and seeks to reconcile and balance them; call it "enlightened capitalism." There are three interrelated normative principles that comprise the fair shares paradigm.

1. Goods and services should be distributed to each according to his or her basic needs.

This may sound like an echo of Karl Marx, but it is at once more specific and more limited. Here the term "basic needs" refers to the 14 primary needs domains mentioned above. Our basic needs are not a vague, open-ended abstraction, or a matter of personal preference. They constitute a concrete agenda, albeit subject to further refinement, with measurable indicators for assessing the outcomes. Also, this paradigm fully recognizes the fact that there are individual and contextual differences and vitally important instrumental needs, which are also subject to change throughout the life-cycle, and that reproduction and the needs of dependent offspring must be included as well. It should go without saying that both markets and a variety of other forms of collective action, inclusive of government actions, may have a role to play in meeting our basic needs.

2. "Surpluses" beyond the provision for our basic needs should be distributed according to "merit".

Merit has many facets, of course, but the ultimate criterion is rewards that are proportionate to our contributions to the collective survival enterprise, and to our common needs (the public interest). This criterion would obviously exclude the profits of drug lords, for example, as well as excessive profits due to various market distortions, like monopoly and cartel pricing, or insider information, fraud, and so forth. However, there is no formulaic way of determining merit. Many social mechanisms, ranging from the market place to a representative, mixed, democratic government, an independent judiciary and many other institutions and practices can and do play a vital role in the imperfect art of determining what is fair compensation. The "merit" principle merely stakes a moral claim and poses the right question.

Does this paradigm imply a return to "welfare queens," or a culture of "free-loading" and an indolent class of economic "defectors", to use the game theory terminology? The answer is emphatically not. Where is the equity in that? In fact, a crucial corollary of the two principles enunciated above is that the collective survival enterprise has always been based on mutualism and reciprocity, with altruism being limited – mostly – to special circumstances under a distinct moral claim (what could be called "no-fault needs"). So a third principle must be added to the fair shares paradigm. It might be called a "reciprocity principle":

3. **<u>In return for the benefits associated with the first two principles, each of us is obliged to contribute to the collective survival enterprise in accordance with his or her ability</u>.**

> The "reciprocity principle" applies equally to the rich and the poor, to wealthy matrons and welfare mothers. However, it also begs the question. How are "abilities" and "contributions" to be determined? Again, there are no formulaic answers, but societies have developed various ways for permitting such collective judgments to be made, from markets to legislatures, election processes, "random" military drafts, examinations, licenses, performance evaluations, progressive taxes, and many more.

Fairness is the golden thread that binds a viable society together. And when that thread breaks, the social fabric will unravel. But fairness is not an all-purpose formula or recipe. It is a general principle that recognizes the merit of competing interests and directs us to find equitable compromises. In this paradigm, compromise is not a "sell-out" of one's principles to political expediency but may well be, and often is, the assertion of a superordinate principle with a higher moral claim; it recognizes and accommodates legitimate competing interests, and it furthers the overarching goal of preserving a "just" economic and social order. However, the evidence is all around us that fairness is often a matter of perspective; it can be a very difficult call. That is why we have a formal justice system, and mediators, family counselors, contract negotiations, and, not least, markets. Indeed, every society has a panoply of informal customs and practices for approximating fairness — from "equal shares" to queuing and "first come, first served," "taking turns," "drawing straws," and "handicapping"– like senior citizen discounts and allowing children to go free. In other words, fairness is an evolving (and sometimes devolving) work in progress, not an Olympian absolute.

<u>Some Questions and Answers</u>

Needless to say, there are many issues raised, and questions begged, by this paradigm. I will briefly discuss just a few of them here. (Others are discussed in Corning, 2003c.)

Some might claim that this sounds like a re-packaging of Marxism. One critic called it "fuzzy Marxism." In fact, the opposite is true. Marxism is grounded in a fuzzy biology, along with a simplistic and one-sided model of human nature. Marxism actually violates the fair shares principles. For one thing, Marx was quite "diffident" and unenlightening about specifying what our basic needs are. Second, Marx made no provision at all for "merit", and he was quite hostile to capitalism. Remember, capitalists were viewed as the villains and were destined, in accordance with the imperatives of Marx's dialectical materialism, to end up in "the dustbin of history" (to borrow Bolshevik Leon Trotsky's epitaph for the Mensheviks). Marx allowed the inference to be made that equality and equity are equivalent. But most important, Marx's directive that everyone should contribute in accordance with his (or her) ability, in the absence of the other two fair shares principles articulated above (especially the claim for merit) could potentially be exploitative and unfair. Despite the similarities in phrasing, the Marxian "contribution principle" does not accord with the fair shares paradigm. Indeed, it is the

combination – the integrated "package" of principles – that makes the fair shares paradigm distinctive.

A second issue concerns the naturalistic fallacy and the so-called "is-ought dichotomy," which prohibits us from deriving norms from any existential facts. A critic might ask: Why ought we to care about our survival and reproduction, much less that of anyone else in our society? More to the point, why should anyone – especially the "haves" – accept the fair shares ethic as a standard for guiding the policies and practices of a society toward those who are less fortunate? Even if we have been "programmed" by our evolutionary heritage to be concerned about fairness, how can anyone claim that this creates a normative imperative? In fact, this is a sophist sand-trap. The issue here is not whether we can derive some categorical imperative for morality. Rather, these are prudential, "if-then" principles. Given the cardinal facts that (1) we do care – intensely – about satisfying our basic needs, (2) these needs must, by and large, be satisfied through the cooperative activities associated with the "collective survival enterprise," and (3) we do, after all, have a shared sense of fairness, then the fair shares ideology
provides a compass for steering a society through the political shoals. It directs us to navigate a middle-course between unfettered free market capitalism and egalitarian socialism. Moreover these principles represent "existential imperatives" in the sense that serious maladaptive consequences – both individually and collectively – will result from ignoring them and pursuing an alternative course.

What about those who cannot contribute their fair share of productive capital and labor? Is there not some danger that unqualified help for the truly needy would turn society into a vast charity ward, imposing a large economic burden on the rest of us? The fact is that complex modern societies already willingly support their dependent children, dependent elderly, and the disabled, among others. We seem to be more grudging about aiding the poor and their children, and many of them *can* contribute in various ways. Nevertheless, there is also a hard-core problem – people in complex societies who, for one reason or another, will always be unable to contribute. "Workfare", or "welfare-to-work" programs will never work for these unfortunate people. This is a reality that we seem reluctant to face. But if our evolved moral sensibilities can encompass the victims of highly visible disasters like floods, earthquakes and terrorist attacks, there is no moral ground for excluding the less visible personal tragedies all around us, including those that are, sadly, biologically based. This is where the golden rule, and perhaps Rawls's "veil of ignorance," should apply, especially knowing that we, or someone we love, could also end up in need. Indeed, one of every five families in the United States has a member who suffers from some form of mental illness. Our welfare programs also represent a form of social insurance, a principle that goes back to the Greek funeral societies.

There is also the politically explosive issue of where do we draw the line, or lines? What about ensuring fairness in the emerging global economy? There can be no doubt that the rich nations must be constrained by a respect for the basic needs of their trading partners in the Third World. They cannot be absolved from a moral responsibility for the consequences of their actions. One model, among others, of what is possible in this regard is the "Fairtrade" relationship between the Day Chocolate Company and the Kuapa Kokoo cocoa growers' co-operative in Ghana. The

company pays a fair and guaranteed price under a long-term trading contract that not only meets the farmers' basic needs but enables the co-operative and its members to invest back in their business and the community. Equally significant, the farmers are also shareholders (and have a voice) in the chocolate company.

But is it realistic to expect an open-ended commitment from the "haves" to provide for the basic needs of the world's population? Should the rich countries accommodate an unrestricted number of babies born to welfare mothers, or "deadbeat fathers"? And would this include the continuation in perpetuity of an open-door immigration policy, or an unending flood of illegal immigrants? Likewise, where do we draw lines in the global economy, where ever more of our needs, and wants, are satisfied by workers in other countries? Global poverty is a vast ocean of unmet needs. For example, in Mexico alone, 40% of its population of 97.5 million live in deep poverty.

There are no easy answers to these questions, but I would reiterate a key point about the nature of the superorganism — the collective survival enterprise. It is based on mutualism and reciprocity, not altruism. So the general answer to my question above is that, in order to be consistent with the norms of the fair shares paradigm, lines eventually must be drawn. This does not preclude altruistic actions, but it delimits a boundary line for reciprocity. That is an inescapable tradeoff. Indeed, even altruism must have limits. As the economist Kenneth Boulding pointed out: "Anyone who believes exponential growth can go on forever in a finite world is either a madman or an economist."

Finally, there is the question of how the fair shares paradigm relates to the survival challenges that lie ahead . The answer, in short, is that these normative principles can, and must, be used to guide our collective responses. Meeting basic needs must come first, but merit and reciprocity will also be vitally important considerations. In the meantime, all three of the fair shares principles can be used to inform our efforts to develop a global strategic plan.

Conclusion

To conclude then, capitalism has been an engine of economic growth and progress; it is a proven system. However, the megathreats and the severe economic challenges that almost certainly await us in the future require the development of a more enlightened capitalism. We need a normative framework that (1) recognizes the many dimensions of the basic survival problem, (2) fully understands our deep interdependency, and (3) is guided by sound social and ethical principles. We must learn to strike a better balance between the workings of the marketplace and the overarching needs of the collective survival enterprise (and its members) as a superorganism. In other words, we must find a middle-ground between the legitimate claims of both the holistic and egoistic models of society.

To paraphrase a famous line from the American founding father, Benjamin Franklin, during the darkest days of the American Revolution: Either we will all survive together or we will most assuredly all go extinct separately. Ultimately, the choice is up to us.

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