

Exponents, Extinction, and Invasive Species

Reconnecting 'oikos logos' and 'oikos nomos'

Book Review by Craig Straub

In his 84th year, the “Father of Human Ecology” has lofted another missile at well intentioned utopian efforts. This hand-crafted device contains a cognitive cure for a culture suffering from population myopia and is designed to stimulate the uninitiated about the implications of ignoring societal taboos. To the educators in the lecture halls, formulators of public policy, proponents of perpetual growth, mercenaries of the masses, and spineless up-and-comings, this is assigned reading. Organizations and individuals preaching from the gospel of posterity are provided the ability to dismantle the hysteria and misperceptions which emanate from issues related to population, economics, ecology, ethics, and culture.

This book is predicated on the analogy of the proverbial ostrich burying its head in the sand and society’s denial of problems associated with human population growth. An infant burying its head in a blanket exhibits behavior called ostrichism. An adult indulges in the same behavior by burying his head in denial as a mechanism to escape further inquiry into the naked truth of an uncovered taboo. Advocates of continued population growth indicate that civilization will rapidly advance because more Shakespeares will be produced to solve humanity’s problems. Hardin reveals that England today has 13 times more people than in Shakespeares’ time and asks “And where are the thirteen Shakespeares?”

As an ecologist and philosopher, the author revisits

Craig Straub, Ph.D., is a restoration ecologist in Cincinnati, Ohio.

the thoughts of 3rd century Christian apologist Tertullian, who regarded pestilence, famines, and wars as blessings to overcrowded nations. Tertullian viewed the value of human and natural catastrophes as nature’s responses to curb the rate of population increase to alleviate more suffering. From *De Anima* Tertullian writes:

As our demands grow greater, our complaints against nature’s inadequacy are heard by all. The scourges of pestilence, famine, wars, and earthquakes have come to be regarded as a blessing to overcrowded nations, since they serve to prune away the luxuriant growth of the human race.

The expression “to prune away” refers to the agricultural practice of getting rid of superfluous living material for the sake of a better harvest. Hardin suggests that the

practice of pruning must be incorporated into every population program to produce a policy of sustainability.

Liebig’s Law of the Minimum (Justus von Liebig) opens the discussion of limiting factors to growth. Liebig’s Law states that “growth of a species is limited by whatever required nutrient is least available.” For example, agriculture relies on nitrogen and oceans are experiencing a phosphorus shortage. To answer the question *How many people can the earth support?* is difficult unless the limiting factor is specified. A population which is only herbivorous can support 5 to 10 times more people with the assistance of photosynthesis. Regarding energy capture, solar energy will support a larger population if space heating and cooling are eliminated. Posing the question “How many people?” implies the desire to maximize the number of people in the world. Many religious fundamentalists contend that Genesis 1:28 (“be fruitful and multiply”) is a commandment to maximize the size of the human

**The Ostrich
Factor: Our
Population
Myopia**

by Garrett Hardin
New York: Oxford University Press
153 pages, \$22.00



population. Hardin indicates that the words of Genesis were addressed to a small human population who could not fathom the consequences of a multi-billion population infested with the habitual practice of seeking the maximum.

The terms shortage and longage provide an understanding of the traditional differences between ecologists and economists. Shortage provides justification to expand infrastructure and profit; Longage implies the need to trim growth. The default position of ecology is based on the conservation principle that "we can never merely do one thing." By contrast, economics maintains that we have a limitless world. Officially a conservative discipline, economics has been contaminated with obstructive empiricism (ignoring conflicting data). The obstructive empiricist promotes perpetual growth which is accepted as a form of optimism. Ecologists are viewed as pessimists and are often detested by economists for revealing the unanticipated consequences of ignoring the complexities of the world. In response to the imbalance between supply and demand, economics offers higher prices by increasing the supply. Ecologists recognize that when dealing with problems of human need, a shortage cannot be cured by increasing the supply. Such an approach encourages production of more people and greater demand. In response to the bifurcation of ecology and economics the newly emerging discipline of ecological economics has been formed to discriminate among limitless demands in a world of limited resources.

Economics has recognized the importance of economies of scale, the notion of gaining economies by producing more of some product. For example, the production of more automobiles per year reduces the cost of each car because the cost of the machinery is divided among more units produced. However, the increase of transportation results in diseconomies of scale by increasing commute time, higher cost for higher capacity roads, and smaller residential lots resulting in displacement of home gardening and more trips to the store. Ecology has acknowledged the economies and diseconomies of scale of generation and extinction. The growth of organisms are subject to limitations and stop when their genetically programmed maximum is reached. Every growth phenomenon exhibits economies of scale in the early stages and will meet barriers of diseconomies of scale, which will halt growth or extinguish the structure. Hardin concludes that the acceptance of a

limited world will be one of the most difficult tasks for our species. The intermediate costs will be high and the reward will be survival.

The humanist champion reveals the ethics involved in distinguishing the controversial ideas of evolution and natural selection. Evolution is an historical idea referring to the past and natural selection is a scientific idea referring to the future. Motivational ethics is concerned with interpretation of the past and implies that an

"...ecological economics has been formed to discriminate among limitless demands in a world of limited resources."

assertion about the past dictates a choice of action in the future. Consequentialist ethics is concerned with future consequences of present acts. Dispute over creation in a few days or over millions of years is to engage in historically accurate motivational ethics. Consequentialist ethics is interested in altering the future and supporting the idea of natural selection: a consequence following the consistent ability of various species to reproduce in a competitive world of limited capacity.

Two examples from the animal kingdom illustrate the principles of consequentialist ethics. The European Swift's inherited behavior equips the mother bird to raise a clutch or dispose of them in response to inadequate food supply (lack of insects during cool weather). More offspring can be produced if the eggs subjected to cool climate conditions are liquidated. Self-sacrifice is displayed by a species of cricket. The mother cricket lays many eggs and offers herself as the first meal to increase the probability of her babies' survival. Natural selection unifies the contradictory behaviors and invests in success. The behavior of the swift and cricket have the same consequences of furthering future generations. The cricket's behavior is a close parallel to human parenting. Mothers in particular become self-less to provide their children a firm foundation for life's journey.

Hardin eloquently handles the hot potatoes of affirmative action and multiculturalism. The distinction between equity and equality is discussed to better

understand the concept of affirmative action. The Declaration of Independence states that “all men are created equal.” The default position of biology is that *no two human beings are created equal*, as displayed by differing physical attributes of identical twins. Hardin believes that when Jefferson was addressing equality in the Declaration of Independence he meant that “every man should be equal under the law.” Equality is a balance on both sides of the equal sign, whereas, equity does not imply equivalence but suggests fairness. George Mason drafted the Declaration of Rights for Virginia in late spring 1776 and wrote: *all men are born equally free and independent*. All babies are equal in their dependence on caretakers. Hardin indicates that Mason was making a statement about **equity** which Jefferson twisted into a misinterpretation of **equality**. Affirmative action was intended to fit the ability of the applicant to the demands of the position. However, the practice has been to equate the proportion of hires to the proportion of the identifiable group in the population, achieving equity and ignoring quality.

Multiculturalism presumes peaceful coexistence of many cultures within the boundaries of the same nation. Examples of multiculturalism from USSR, the Baltics, and Central Africa have resulted in violence generated by chaos. Hardin suggests the ready adoption of multiculturalism is based on a serious misunderstanding of culture. The definition of culture by 19th century anthropologists: “the activities of a society — that is, of its members — constitute its culture” was intended to enlarge sympathy for daily rituals around the globe. The consequences of multiculturalism are much different when many cultures are placed within a single nation (intranational multiculturalism) rather than between nations (international multiculturalism). The unity and

strength of a nation depends on maintaining the dominance of law-supported discriminations. To achieve world peace, spatially separated countries must obey different ethical mandates. A nation selecting to forbid genital laceration of young girls cannot tolerate internal diversity. Intranational multiculturalism creates chaos and destroys national peace. By contrast, international multiculturalism can promote peace in the short term and still provide appreciation of culture through personal visits and information exchange.

In the closing chapter, Hardin advises the youth to explore Rowland’s dark world. F. Sherwood Rowland of the University of California at Irvine discovered that chlorofluorocarbons (CFCs) were destroying the ozone layer, allowing more ultraviolet light to penetrate to Earth. For fourteen years after Rowland’s discovery no graduate students outside the University of California system applied to work with him. The trend increased only after a large research contract was granted and after receiving the Nobel Prize in Chemistry in 1995. Rowland indicates the cause of delay was the discovery of facts which did not improve the human situation of the world. Rowland addresses the young worker who is hoping to make a reputation in a crowded field: “Don’t look under the light. Go out into the darkness.” Hardin completes his advice by adding that the dark corners contain the greatest possibilities for discovering reforms capable of improving the human condition. More knowledge is required about population-linked cultural habits. Painful experiences will be required to banish humanity’s illusion of perpetual growth in a world of infinite resources. When the subtle world of Rowland’s dark area becomes the world of the young, we will make real progress in optimizing the quality of life on **TSC**

Quotable Hardinisms from *The Ostrich Factor*

Compiled by Craig Straub

As far as the urbanites are concerned, milk comes in waxy cartons; capons and steers are such a great mystery they are seldom named. (p.14)

Earthly language serves two contradictory purposes: to facilitate thought and to prevent it. (p.19)

He (Tertullian) realized that whenever a community consists of too many people for the resources available to it, heavy mortality can then actually improve the conditions of life for the lucky survivors. (p.22)

Simon (Julian) really should have taken an elementary math course before he said anything about the consequences of the human population. (p.35)

We can’t cure a shortage by increasing the supply. (p.39)

Dipping into the great bulk of economic analysis, you soon discover that environment is usually no more than a ghost in the woodwork. (p.40)

We see only what we have names for. (p.41)

Every proposal to build a dam, to widen a highway, to cut down another forest, to turn wetlands into salable real estate, or to bury unwanted waste products is sure to have unintended consequences.... (p.41)

From now on, we must accept responsibility for all unintended consequences while doing our best to predict them in advance... (p.42)

Extremism appears to lead to clear-cut decisions, whereas moderation embarrasses us by emphasizing problems that are yet to be solved. (p.42)

The more successful a continuously growing population is in extracting wealth from nature-the-resource, the sooner it will suffer from the intransigence of the unintended creation, nature-the-sink. (p.43)

Thus, in figurative language intended for children, Kingsley (Reverend Charles) hinted that God may not have given us a ready-made world, as described in Chapter 1 of Genesis; rather, his primary gift was the process of natural selection, which, given enough time, could - and did, and still does - put together the incredibly complex and beautiful world we live in. (p.59-60)

The reward determines the outcome. (p. 61)

Money is both the kind word and the gun. If the firepower is not great enough to persuade the targeted person, increase the offer. (p.74)

All persuasion takes place through coercion. (p.76)

Intuitively, it should be obvious that the ability to escape society's punishment is directly related to the density of the community's population. (p.77)

To condemn the coercion of the individual by the group is to reject democracy. (p.78)

With no sign of cessation of population growth, diseconomies of scale are sure to become a "growth industry." (p.80)

The maximum is not the optimum. (p.82)

But life will never be satisfactory so long as Madam Ostrich, put in charge of the human household, is allowed to sweep problems under a sandy rug. (p.82)

"Sustainable growth" is an oxymoron. (p.86)

.... sustainable development can be defended because an adult can continue to develop his or her intelligence without any growth in body weight. (p.86)

One world cannot endure - not in a universe programmed by natural selection. (p.96)

And remember the competitive exclusion principle: if fertility varies in a population that is offered options in fertility, then as generations succeed one another, the

pronatalist elements in the population will, in time, displace the ones who conscientiously limit their fertility. (p.105)

Propaganda in favor of reducing fertility must be accompanied by repressive legal measures. (p. 106)

... equity is determinable by law and custom; equality is determined by nature. (p.114)

Multiculturalists, in effect, urge that we eat borscht with chopsticks. (p.122)

... affirmative action implies that if we cannot guarantee equality, then we should legislate equity. (p.128)

Immigrant labor pauperizes domestic labor. (p.138)

... apparently it is easier for the media to photograph scenes that suggest the suffering of new immigrants than it is to prove, photographically, that widely dispersed job losses have a common cause. (p.138)

Low standards of living drive out high standards. (p.149)

But does God give a prize for the maximum number of people? Such a God cannot be the Einstein's God. If such is now the God of Christian sects, they are putting their money on the wrong horse. (p.150)

If He (God) is concerned at all with our well-being, it is hard for a thinking human being to believe that He would work only in the light. (p.152)

The big difficulties, worthy of the attention of God worshipers, are in the dark now, in the area that, after many centuries of being neglected, promises to make human life more enjoyable. (p.152)

Knowledge alone will not move nations: astonishing and unforeseen events will be required for humanity's education. (p.152)