## **IMPRINTING: THEATER OF THE ABSURD OR ?**

John Cairns, Jr.

Department of Biological Sciences, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061, USA

If anything characterizes the 21<sup>st</sup> century, it's our inability to restrain ourselves for the benefit of other people. The cell phone talker thinks his rights go above that of the people around him, and the jammer thinks his are the more important rights.

> James Katz, Director Center for Mobile Communication Studies at Rutgers University

The good man is the friend of all living things.

Mohandas Gandhi

*Imprinting* – a rapid learning process by which a newborn or very young animal establishes a behavior pattern of recognition and attraction to another animal of its own kind or to a substitute or an object identified as the parent

### **Issue Statement**

In the 21<sup>st</sup> century, human society, arguably even humankind itself, is threatened by climate change, overpopulation, and the imminent decline of petroleum, which has powered the Industrial Age. As I write this on 2 December 2007, a United Nations meeting is scheduled to be held in Bali to discuss reduction of greenhouse gas emissions. Agreement is unlikely on any reductions even close to the 80% recommended by global scientists. Some nations (United States, China, and India) crucial to any effective agreement have already indicated they will exercise their sovereign rights to decide how they will address climate change.

The United Nations has, for over 50 years, been unable to prevent war because its charter states that the organization is founded on the principle of sovereign independence of its members. International law has the same limitation since compliance works only when the law does not threaten national sovereignty

Global heating has already reached a crisis stage due to greenhouse gas emissions, which have resulted from human activity. Each individual's decision on energy use has created the problem and, therefore, could also markedly reduce the problem. However, although some individuals are making heroic efforts to reduce greenhouse gas emissions, the trends are markedly upward. Worse yet, over 150 new, coal-fired electric power plants will go online soon. One tragic component of this situation is that the world's poor produce few greenhouse gas emissions and the wealthy produce the most. However, shockingly, the poor are suffering most at present from climate change, and they have few resources to help them adjust to these changes, which include droughts, floods, desertification, crop failure, loss of water supplies, and increases in insect-borne diseases.

#### **Hypothesis**

One of the most famous pictures in science is of two geese that, in the absence of their mother, had imprinted on Konrad Lorenz! However, in this era of single parent families in which the parent may hold two jobs, children are often left alone with the technological artifacts of human culture, some of which use much more energy than was available to most humans just a few thousand years ago. Many children spend more time with televisions, ipods, or computers than they do with their parent(s). Is it possible that a form of imprinting to these technological artifacts has occurred?

Rampant Individualism

Rampant individualism is characterized by refusal to admit that one is part of the interdependent web of life - not apart from it. One manifestation of this belief is refusal to acknowledge one's dependence on the biospheric life support system, which has kept the atmospheric gas balance and other planetary conditions (e.g., temperature) favorable for Homo sapiens for approximately 160,000 years and for the genus Homo for over 1 million years. An unfortunate consequence of this belief is to place maintaining economic growth ahead of protecting the health and integrity of the biospheric life support system. This misinformed belief maintains that the human economy and human society are not dependent upon Earth's ability to regenerate natural resources. This belief encourages the assumption that humankind's control over and freedom from environmental limits means that humans can ignore what is happening to the environment because the environment lacks the ability to influence human society. However, on 2 December 2007, thousands of government officials, industry lobbyists, environmental campaigners, and observers arrived on the Indonesian island of Bali because reports of the United Nations Intergovernmental Panel on Climate Change detailed the potentially devastating effects of global climate change on human society if it fails to take immediate remedial action on greenhouse gas emissions (Gelling and Revkin 2007). Few participants expected significant breakthroughs from these talks: at most, they expected new commitments to renegotiate the conditions of the Kyoto Protocol, which expires in 2012. Yvo de Boer, Executive Secretary of the United Nations Framework Convention on Climate Change, stated: "We would be in big trouble if we can't reach an agreement to move forward by the end of the conference. The science is clear. We now need a political answer" (as quoted by Gelling and Revkin 2007). Fatih Birol, Chief Economist at the Paris-based International Energy Agency, went even further: "We need everyone to play the game.... Without the big three [U.S., China, and India] on board we have no chance to fix the climate change problem" (Commentary 2007).

Monbiot (2007) describes the problem vividly: "When you warn people about the dangers of climate change, they call you a saint. When you explain what needs to be done to stop it, they call you a communist." The evidence on global heating and other manifestations of climate change is appearing at an astounding rate, yet Monbiot (2007) notes that the British target to reduce carbon emissions is based on a 2003 report that used assessments published in 1995. Worse yet, some target dates are in 2050, when the human population is predicted to reach 9 billion, and this population size was not taken into account. Monbiot (2007) discusses the impact of positive feedback loops, which have not been given the attention they deserve.

The cornucopian view of Earth took a major blow in 2007 as science showed that technology and economic growth were having deleterious effects upon climate, clean air, potable water, oceanic fisheries, old growth forests, and the natural capital that provides all these needs and more. As Garrett Hardin repeatedly stated for his entire professional life, do humans want the largest number of people at a subsistence standard of living or a smaller number leading a quality life? The climate conference in Bali has not reassured any of the people (including me) who believe that drastic measures to control greenhouse gas emissions are necessary now, not in 2050. Some people are well aware of troublesome times ahead, and they are buying guns (Klein 2007). Klein (2007) notes, possibly in jest, that, "for a sure bet in a new growth market, sell solar, buy surveillance; forget wind, buy weapons." Policies and technologies must be developed to remove humankind from present disastrous trends or, alternatively, to protect humankind from those entities that lost resource wars or became environmental refugees because of climate change. The latter choice is not sound because the poor and middle-class populations vastly outnumber the ultra-rich and will have very little to lose when they attempt merely to survive.

### Suicidal, Unsustainable Practices

Humankind is involved in suicidal practices that are both unsustainable and likely to destroy its culture. Information has been available for years on this difficult situation, especially in developed nations where access to the Internet is taken for granted. Denial is attractive, but it requires an intense rejection of scientific evidence, as is the case with tobacco and drug use.

Years ago, I gave a lecture in a large auditorium with a number of television screens placed at locations throughout the auditorium. I was astonished to find that the people in the first three rows were looking at the television screen nearest them, even though I was only 20-25 feet from them.

Denial may be important. In the United States, society becomes fixated on nuclear bombs (i.e., movies, books, etc.), but then the fixation falls out of the collective consciousness for long periods of time (Tomdispatch Interview 2007). Jonathan Schell (Tomdispatch Interview 2007) notes that no nation can maintain either a nuclear monopoly or a decisive superiority in numbers of weapons. He further notes that the nuclear bomb is not going to be useful in wars – at the very best, it is useful for threatening:

The task is to live – that first means survive – with our new powers, however troublesome or unwanted they may be. We have to incorporate those powers into our thinking at a fundamental level and learn how, forever after, to live as a species that can destroy itself, but, has chosen, through an enduring act of political will, not to.

Humankind is now faced with three major threats: (1) nuclear war, (2) global climate change, (3) exponential population growth. Nuclear bombs, as an ecological threat, were born before the context in which one could understand them. However, global climate change and exponential population growth provide a context for nuclear war that was not previously present. All are complex, interactive systems that add new stress to the areas of traditional geopolitical instability; the new term for these interactions is *threat multipliers* (Howden 2007). However, although the Keeling Curve, now a scientific icon, shows rising atmospheric carbon dioxide starting just before 1960 (Briggs 2007), not much has been done to reverse this trend. Sad to say, some members of the US Congress still dispute the relationship between such scientific evidence and global climate change.

Strangely, the probable significant decline in world agricultural productivity (e.g., Staff Writers 2007) has not made a significant change in lifestyle either. Poor countries in Africa are being hurt the most, and things are very likely to worsen. The tropics are expanding, which will affect not only agriculture but will also increase disease transmission (BBC News 2007). A bigger concern for wealthy countries, such as the United States, is that they may suffer from damage caused by extreme weather.

### The Elusive Fatal Flaw

The paleontological record shows that most of the megafauna preceding *Homo sapiens* became extinct. Each extinct species failed to tolerate various new conditions. Why should humankind be any different? Of course, humans have technology, but both its manufacture and use depends, with some exceptions, upon cheap, abundant fossil fuel (e.g., petroleum). However, in using this energy, humans have struck a Faustian bargain – burning fossil fuels produces greenhouse gases that are markedly changing Earth's climate. In addition, technology has enabled humankind to use natural resources faster than Earth can regenerate them (ecological overshoot). Finally, cheap, abundant fossil energy has enabled a temporary cornucopian production of food, which has enabled the human population to double in less than a century (present rate: 1.5 million more people weekly). The daily news almost always has tales of environmental destruction that threatens human society. For example, more than half the Amazon rainforest, sometimes called the lungs of the world, could be gone by 2030 (Eccleston 2007).

Why is humankind committing these misdeeds to itself and its posterity? The Society of German Language word of the year is *Klimakatastrophe* – a much more alarming description, which emphasizes *catastrophe*, than the cozy term *global warming*. Is humankind so delusional or are individuals in wealthy, developed societies so addicted to a consumer oriented, high energy lifestyle that is so compelling that they are in denial about the horrendous adverse effects of their actions? The 2007 Bali Climate Declaration, prepared under the auspices of the Climate Change Research Centre at the University of New South Wales in Sydney, Australia, is a consensus document. It notes that the amount of carbon dioxide in the atmosphere now far exceeds the natural range of the past 650,000 years, and human activity is making the amount rise very quickly. If this trend is not halted soon, coasts and cities of many nations will be threatened by rising sea levels, and many ecosystems, plants, and animal species will be in serious danger of extinction (Climate Change Research Centre 2007). Such warnings have been made public for years – the culmination of which is the massive Intergovernmental Panel on Climate Change reports. None of these reports elicited anything close to the necessary response. Will multiple major catastrophes be necessary to elicit a meaningful response or will they, too, be greeted with apathy?

### Welcome to the Theater of the Absurd

The term *Theater of the Absurd* was coined by critic Martin Esslin, who made it the title of a 1962 book on the subject. Esslin noted that plays of this category give artistic articulation to Albert Carmus' philosophy that life is inherently without meaning, and, consequently, one must find one's own meaning, as illustrated in his work "The Myth of Sisyphus." This genre of theater achieved popularity when World War II highlighted the essential precariousness of human life. Camus argued that humanity has to resign itself to recognizing that a fully satisfying, rational explanation of the universe is beyond its reach; in that sense, the world must ultimately be seen as absurd. The Absurd Theater hopes to instill in humans a sense of cosmic wonder by shocking them out of an existence that has become trite, mechanical, and complacent.

## Theater Washington, DC

For over a year, people in the US capitol have hoped for a technology to sequester the carbon emitted by carbon-burning, electricity-generating power plants. No satisfactory technology has been developed. However, nature has always removed carbon dioxide from the atmosphere and emitted oxygen for mammals to breathe. The organism that has performed this service in nature for millions of years is called a tree. However, these natural commodities have been harvested and turned into paper for congressional reports (even on global heating) and newspapers that both report congressional activities and contain advertisements that promote economic growth.

Nature has also stored vast amounts of carbon underground as petroleum, coal, and natural gas. This storage has previously kept the carbon out of the atmosphere; however, humankind has brought it to the surface and burned it. Some tax and profit breaks have even been offered to companies who do harvest and burn the carbon.

In the US Congress in December 2007, the House of Representatives passed a fairly strong energy package that will probably not survive in the Senate. One provision calls for US cars and light trucks to average 35 miles per gallon (mpg) of gas by 2020. The standard was considered too high, even though some cars (Prius currently) can average 50 mpg. This standard has already been achieved in China and surpassed in Europe (Friends of the Earth 2007).

However, some of the oil-rich nations may provide the incentive for fuel efficiency. Krauss (2007) notes that

Economies of many large oil-exporting countries are growing so fast that their need for energy within their borders is limiting how much oil they can sell abroad, adding new strains to the global oil market. . . Rising internal demand may offset 40 percent of the increase in Saudi oil production between now and 2010, while more than half the projected decline in Iranian exports will be caused by internal consumption.

Meanwhile, back in the good ol' USA, attempts will be made to counteract this loss by converting food, such as corn, to ethanol for fuel, raising the price of corn and, in turn, the price of tortillas for poor Mexicans. In addition, the price of corn-fed animals (cattle, chickens, pigs) will increase – so who cares if it costs more to drive to a fast food place? Another bright side is that there will be less fuel for trucks in China, which cause respiratory problems for humans (Bradsher 2007).

In his acceptance speech for the 2007 Nobel Peace Prize, former US Vice-President Al Gore stated: "our world is spinning out of kilter" and "the very web of life on which we depend is being ripped and frayed" (Lyall 2007). Gore also stated that "humanity risks sliding down a path of mutually assured destruction" (Mellgren 2007). Curiously, discussion has been lacking of how human society got where it now is. Of course, common knowledge dictated that humankind has burnt too much fossil fuel too fast, destroyed old growth forests that store carbon, etc. However, why did humans do these things when robust scientific information warned of these deleterious effects and other actions? A strong resistance exists, even an unwritten taboo, to asking such questions. Perhaps humans are just actors in a theater of the absurd. Nonetheless, some illustrative questions follow.

(1) Why do some politicians insist on abstinence to eliminate unwanted teenage pregnancies and refuse to send contraceptives to poor countries where population increase is a very serious problem?

(2) Why do wealthy nations convert food to fuel with approximately 1 billion starving or malnourished people globally?

(3) Why do US presidential candidates add to the fuel crisis by flying back to Washington, DC, to vote on a congressional bill to reduce the present energy crisis?

(4) If the endangered species list appears too long to some political appointees, does it help to remove some names from the list without a scientifically sound analysis carried out by credentialed scientists?

(5) Why is humankind so unconcerned that the tropical belt that girdles Earth is expanding north and south (Connor 2007)? This expansion will affect temperate zone agriculture, disease transmission, and thousands, possibly millions, of species, and yet no substantive discussions of this problem have occurred, even though it is already having effects.

# Reverence for Life

Albert Schweitzer (1949, p. 233) states:

The ethic of Reverence for Life is found particularly strange because it establishes no dividing line between higher and lower, between more valuable and less valuable life. For this omission it has its reasons. To undertake to lay down universally valid distinctions of value between different kinds of life will end in judging them by the greater or lesser distance at which they seem to stand from us human beings – as we ourselves judge. But that is a purely subjective criterion. Who among us knows what significance any other kind of life has in itself, and as a part of the universe?

Yet efforts persistent in drilling oil in the Alaskan wildlife refuge, although recovering the oil under the refuge would only allow the "high-energy party" to continue for a brief period in evolutionary time. How could humankind have so little regard for the life above the oil that it would desecrate the refuge so?

## Beyond the Point of No Return

Gelbspan (2007) is no "feel good" environmentalist, so his words deserve attention:

We have failed to meet nature's deadline. In the next few years, this world will experience progressively more ominous and destabilizing changes. These will happen incrementally – or in sudden, abrupt jumps.

## He states further:

All these initiatives address only one part of the coming reality. They recall the kind of frenzied scrambling that is characteristic of trauma victims – a frantic focus on other issues, any other issues – that allows people to avoid the central take-home message of the trauma: in this case, the overwhelming power of inflamed nature.

Even Gelbspan (2007) avoids stating that *Homo sapiens* could become extinct. The thought is frightening, but more than a possibility – it is a probability since humans are damaging the biospheric life support system that maintains conditions favorable to humans. The quest for sustainable use of the planet is based upon three assumptions: (1) that humans would use intelligence and reason to stay within the carrying capacity of Earth (i.e., no ecological overshoot), (2) that humans would develop a mutualistic relationship with natural systems that constitute the life support system, (3) that humans would do everything possible to leave a habitable planet for posterity. Humankind has done none of these things. Why?

## **Disdain for Thinking**

Albert Schweitzer states in his biography (1949, p. 219): "With the spirit of the age I am in complete disagreement because it is filled with disdain for thinking," and "but today in addition to the neglect of thought there is also prevalent a mistrust of it" (p. 220). During one of the Democratic candidate debates for the US presidency on a university campus, one student posed this question from the audience: "Do you prefer diamonds or pearls?" and addressed it to the only female candidate, Hilary Clinton, on the podium Apparently, the female student had intended to ask about storage of nuclear wastes in Yucca Mountain, but was dissuaded. In a real way, her important thought was suppressed. Schweitzer (1949, p. 222) continues: "Renunciation of thinking is a declaration of spiritual bankruptcy." Had Albert Schweitzer been alive today, he would have been horrified to learn that political appointees, with few or no scientific reports were on global climate change, including disease transmission. An uncharitable person in the United States might conclude that suppressing thought and science were backed by unwritten policy.

### Conclusions

What can one say about a species that is destroying its life support system and leaving an uninhabitable planet for posterity? Reasoning will not explain humankind's destruction of its habitat to gain material possessions, which did not result in increased happiness or satisfaction with life. Little time remains to redesign human lifestyle so that it is sustainable, but the undertaking is worth a try. The lifestyle of humans would be

more likely to be sustainable if population was less. Professor Albert A. Bartlett (personal communication) sums this up as follows:

A SELF-EVIDENT TRUTH

If any fraction of the observed global warming can be attributed to the actions of humans, then this, by itself, constitutes certain and convincing proof that the human population, living as we do, has exceeded the Carrying Capacity of the Earth, a situation that is clearly not sustainable. As a consequence it is AN INCONVENIENT TRUTH that all proposals or efforts at the local, national or global levels to solve the problems of global warming are serious intellectual frauds if they fail to advocate that we address the fundamental cause of global warming namely overpopulation.

My problem is that, although I have been shocked by humankind's unsustainable practices, I cannot abandon hope that my children and grandchildren, and those of other people, will have the opportunity to live harmoniously on a habitable planet with a diverse assemblage of other species. Scientific evidence indicates that a small "window" of opportunity still exists. I cannot believe humankind is so enthralled with its present lifestyle that it will pass up the opportunity to leave a habitable planet for posterity, however huge the sacrifices. We lack inspiring leaders to get humankind to act swiftly – perhaps they may soon appear. May it be so!

Acknowledgments. I am indebted to Darla Donald for transcribing the handwritten version of this discussion and for editorial assistance in preparing it for publication. Karen Cairns, Walter Youngquist, Paul R. Ehrlich, and Alvin Lucier called useful references to my attention.

## LITERATURE CITED

BBC News. 2007. 'Tropics expand' as world warms. 4Dec http://news.bbc.co.uk/2/hi/science/nature/7126069.stm.
Bradsher, K. 2007. Trucks power China's economy, at a suffocating cost. New York Times 8Dec http://www.nytimes.com/2007/12/08/world/asia/08trucks.html.
Briggs, H. 2007. 50 years on: The Keeling Curve legacy. BBC News 2Dec http://news.bbc.co.uk/2/hi/science/nature/7120770.stm.
Coile, Z. 2007. House, Senate target climate change. San Francisco Chronicle 31Jan http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/01/31/MNGQCNS3NI1.DTL.

Climate Change Research Centre. 2007. 2007 Bali Climate Declaration by Scientists. University of New South Wales, Sydney, Australia. http://www.climate.unsw.edu.au/bali/.

Commentary. 2007. Spotlight on China, India and US. The Age 2Dec http://www.theage.com.au/news/world/spotlight-on-china-india-andus/2007/12/02/1196530464250.html.

Connor, S. 2007. Expanding tropics 'a threat to millions.' The Independent 3Dec http://environment.independent.co.uk/climate\_change/article3218026.ece. Eccleston. P. 2007. Half of Amazon could be gone by 2030. Telegraph 6Dec

http://www.telegraph.co.uk/earth/main.jhtml?xml=/earth/2007/12/06/eaamazon106.xml.

Friends of the Earth. 2007. Energy bill passes House and fails in Senate. 9Dec

http://action.foe.org/content.jsp?content\_KEY=3582.

Gelbspan, R. 2007. Beyond the point of no return. Gristmill 11Dec http://gristmill.grist.org/story/2007/12/10/165845/92.

Gelling, P. and A. C. Revkin. 2007. Climate talks take on added urgency after report. New York Time 3Dec http://www.nytimes.com/2007/12/03/world/asia/03bali.html.

Howden, D. 2007. Bali conference: Diplomats warned that climate change is security issue, not a green dilemma. The Independent 6Dec

http://environment.independent.co.uk/climate\_change/article3226421.ece.

- Klein, N. 2007. Ditch green industries, invest in guns a deadly market gospel. AlterNet 3Dec http://www.alternet.org/environment/69285/.
- Krauss, C. 2007. Oil-rich nations use more energy, cutting exports. New York Times 9Dec http://www.nytimes.com/2007/12/09/business/worldbusiness/09oil.html?ex=1354856400&en=850b0d0f accc4d33&ei=5088&partner=rssnyt&emc=rss.

- Lyall, S. 207. Gore urges bold moves in Nobel speech. New York Times 11Dec http://www.nytimes.com/2007/12/11/world/11nobel.html.
- Mellgren, D. 2007. Gores gets Nobel, warns of ominous threat. The Huffington Post 10Dec http://www.huffingtonpost.com/huff-wires/20071210/nobel-prizes/.
- Monbiot, G. 2007. What is progress? The Guardian 4Dec http://www.monbiot.com/archives/2007/12/04/what-is-progress/.
- Revkin, A. C. 2005. Bush aide softened greenhouse gas links to global warming. New York Times 8June http://www.nytimes.com/2005/06/08/politics/08climate.html.
- Schweitzer, A. 1949. Out of My Life and Thought. Henry Holt and Company, New York, NY.
- Staff Writers. 2007. World farm output to drop due to global warming: experts. TerraDaily 4Dec
  - http://www.terradaily.com/reports/World\_farm\_output\_to\_drop\_due\_to\_global\_warming\_experts\_999.ht ml.
- Tomdispatch Interview. 2007. Jonathan Schell, the bomb in the mind. 4Dec http://www.tomdispatch.com/post/174870.