

WHY WE'RE DESTROYING

On this millennial Earth Day, awareness of our depleting natural resources research hopes to explain why we continue to damage the environment

By Robert Gifford, Ph.D.

In November, nearly 80,000 people flocked to Seattle, Washington, to protest the disregard of the World Trade Organization (WTO) for environmental concerns. Impassioned demonstrators from San Diego to France inundated the streets of downtown Seattle for days, railing against the toll that free trade often exacts on endangered wildlife.

Unfortunately, the protestors' admirable pilgrimage to save the environment actually hurt it more than they knew. Consider how many well-intentioned individuals who normally would have stayed home flew across the country, sapping tons of energy and releasing vast amounts of carbon dioxide into the air. According to the U.K.'s Royal Commission on Environmental Pollution, aircraft emissions of carbon dioxide could triple over the next 50 years, highly exacerbating global warming. This is just one of the ways we destroy the environment even as we're trying to protect it—a tragic irony that is one of the major themes of environmental psychology.

Many people, based perhaps on well-publicized disasters like the 1989 Exxon Valdez oil spill, believe that environmental problems are most often caused—and best solved—by government or big business.

Most environmental damage, however, begins not with government or large companies, but with the cumulative actions of individuals. If there is a solution to this global crisis, it is to understand—and remedy—the decision-making of individual consumers of energy before nature pays the price.

For about 30 years, environmental psychologists have struggled to understand the way we treat our surroundings, which ultimately harms our own well-being, since environmental assault can wreak havoc on our health, even leading to illnesses such as cancer. Over 100 studies conducted in the last two decades have examined the ways individuals influence the environment—from deciding to have another child to turning on the air conditioner—and why they make such decisions. We know that some people do refrain from overusing nonrenewable resources, from forests and fish to less tangible resources such as clean air and physical space. Environmental psychologists are now examining the mind-set of such individuals, hoping eventually to encourage others to consider our resources in the same way.

More and more people are environmentally aware these days—curbside recycling, insulated homes and Woodsy Owl's slogan "Give a hoot, don't pollute" are now ingrained in our cultural consciousness. You might think that awareness would lead to environmentally friendly behavior, but it does not: Well-educated, middle-class North Americans, the people most likely to have high environmental awareness, use far more energy than Third World residents—and other North Americans too.



Why the discrepancy between words and deeds? So far, scientists have identified at least 30 different personal, social or structural influences that affect whether a given person uses natural resources wisely or takes more than their share. There are four overriding ways that people, mostly unconsciously, hurt the environment every day:

- *Energy use.* Perhaps our biggest priority is to curb our heavy use of fossil fuel energy sources, like oil. Burning these fuels produces greenhouse gases and ground-level pollutants, leading to global warming, a planetary danger no longer questioned by

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A CENTURY OF DISASTER

1900 • Industrial Revolution
London factories emit acid pollution, leading to mass fatalities and grime still evident today.



CORBIS



1944 • Hiroshima and Nagasaki

1961-71 • Agent Orange released in Vietnam

1976 • Seveso

A Hoffman-LaRoche pharmaceutical plant in Milan has a reactor explosion, emitting dioxin into the air. The next year, birth defects are up by over 40%.

1978 • Love Canal

A small town near Niagara Falls becomes a ghost town after industrial sludge from a leaking dump renders the area toxic. People are only now moving back, and scientists are still assessing the damage.



SHAWN VAN STEEN/ISTOCKPHOTO

1978 • Amoco Cadiz oil spill
Brittany's coast is covered with 200,000 tons of pollution.

1979 • Three Mile Island explosion

1981 • Antarctica
Scientists first discover a gaping hole in the ozone layer over this continent.

POISONING THE EARTH

is at an all-time high, and, yet, so is their destruction. A new field of environmental psychology is even as we think we're protecting it—and how we can stop.

experts. A 1998 study in the journal *Bioscience* showed that 40% of deaths worldwide are caused by pollution and other environmental factors. Furthermore, energy use is growing: Dutch researcher Linda Steg, Ph.D., reports that in the Netherlands, a region typical of developed nations, consumers now use 25% more energy than they did just 14 years ago.

- *Convenience.* Taking a plane is several times less fuel-efficient even than driving, but we often choose to fly to save time. In a typical recent year, U.S. commercial airliners carried 60 million passengers 158 billion miles, using 21 billion gallons of jet fuel in the process. Similarly, cars afford us speed and comfort compared to cycling or walking. But a Dutch study found that about 20% of car trips are for journeys of less than one mile. Is this truly necessary?

- *Overpopulation.* In a classic 1968 article, biologist Garrett Hardin, Ph.D., theorized that environmental destruction stemmed from the fact that there are just too many mouths to feed, even with great agricultural improvements. The Population Reference Bureau reports that the 20th century began with 1.6 billion people on the planet and likely ended with 6 billion. This is the end result of every parent's personal decision to have a child, whether they realize it or not.

- *Ignorance.* Robyn Dawes, Ph.D., a professor at Carnegie Mellon University,

blames "limited processing": People simply don't place their daily behaviors in an environmental context; their decisions are literally thoughtless. Some progress has been made since Dawes' initial research (witness the growth of recycling), but how many people consider the environment when they flip a light switch or use an electric toothbrush?

Many people take whatever they can, believing that natural resources are inexhaustible. A review of 59 studies by Donald Hine, Ph.D., and myself revealed that individuals use resources more wisely when the group sharing the resource is small in number, communicates well and is informed that goods are limited. Unfortunately, groups that share real-world resources are usually large, often communicate poorly and don't realize the resource crisis they face. In a 1994 study that simulated ocean fishing in groups of up to 200 in size, I found that participants would cut back their fishing when they learned that the fish stocks were depleting. But the cutbacks they made were too little to save the fish population over the long run. People were destroying a resource just as they believed they were helping it, not unlike those who flew to protest the WTO or who travel to far-off national parks to revel in nature.

To reverse this ill-fated trend, you can construct your life to make conservation

easy. For example, the next time you move, place environmental considerations near the top of your list by relocating as close as possible to work or school. Then you won't drive as much, and won't have to ride a bike or walk too far, either. Residing in a slightly smaller home would consume less energy for heating or cooling without forcing you to sacrifice much comfort. Do you need to fly as much as you do? Perhaps there are undiscovered vacation spots close to home. And instead of flying to your next business meeting simply because your company will pay for it, try carpooling or taking a train, or telecommuting via phone, fax or the Internet.

Adopting these measures would significantly reduce pollution and global warming and its ill-effects on our well-being. Celebrate this April 22, Earth Day, by making a few of these changes. The world depends on it. ■

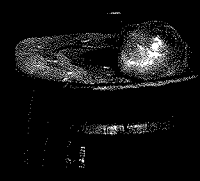
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Environmental Psychology, Robert Gifford, Ph.D. (Allyn & Bacon, 1997)

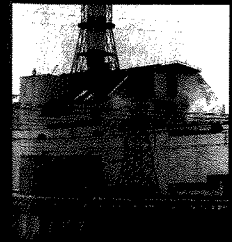
Ecological Psychology, Deborah DuNann Winter, Ph.D. (HarperCollins, 1996)

1984 • Bhopal
An Indian factory releases 30 tons of a pesticide, killing over 3500 people and injuring tens of thousands.



DAVID DODDY/UNIPHOTO

1986 • Chernobyl



COBRIE

1989 • Exxon Valdez oil spill



KEN GRAHAM/TONY STONE

1991 • Gulf War
The "conflict" causes the largest oil spill in history, among other assaults.

1991 • Chelyabinsk
The Russian nuclear plant is found to be the most polluted spot on Earth.



1999 • Japanese radiation leak

GABE PALMER/ THE STOCK MARKET