

GREEN LIVING

By Cile Downs

Unintended Consequences... and the Precautionary Principle

Once, back in my school days, I saw a little film in biology class that showed the enormously speeded-up behavior of tiny soil organisms. Funguses (fungi to you biologists) grew into pretty little loops, and here came the nematodes! They were probably moving at less than a snail's pace in real life, but they wriggled energetically in the film, worming their way through the loops. Then the trap was sprung! The loops tightened on the worms and killed and absorbed them. I never forgot this example of the Wonders of Nature.



Decades later I heard about how the Long Island potato farmers had to fumigate their soil to kill nematodes. No mention of any negative effects of fumigation. No explanation for the presence of a plague of nematodes – just, you know, an unexplained evil. But don't potato farmers use lots of fungicides to avoid blights like the one that starved Ireland? So had their destruction of funguses in the soil removed an enemy of nematodes and unbalanced the whole system?

This, if true, is the sort of thing I call the unintended consequences of human actions that seem logical at the time. Our lives today have been altered and even endangered by innumerable such actions in the past; what difference will our present actions make in the future? Who dreamed spraying DDT on marshes to kill mosquitoes would kill fish so efficiently and almost wipe out the ospreys? And then that mosquitoes would develop immunity to it, calling the whole program into question? Finally it was the suspicion that DDT might be carcinogenic for humans that brought about the ban that gave EVEN Mosquito Control (as Vector Control was called then) an ultimatum. I shudder when I hear that some people want to bring DDT back. Are they too young to have seen it fail right before their very eyes, as I did? Their habit of selectively remembering the successful part of the story (there were NO mosquitoes here for a couple of years) and developing total amnesia about the rest (DDT stopped being effective before it was banned) I call naïve technological optimism. This attitude is beautifully illustrated by that very advanced railroad bridge built over the Firth of Tay in Scotland in the year 1877, which nineteen months later fell down. Then, just over sixty years later, as though to show what an illusion technological progress is, the Tacoma Narrows bridge in Washington did the same. Or think about the levees around New Orleans which, having failed, are being replaced by more of the same. Someone ignored the lessons that should have been learned, or maybe the Army Corps of Engineers are just slow learners.

With nuclear power plants, the technological optimism is magnified into a sort of touching religious faith. As with space shuttles and missile defense... but enough examples: it's not so touching. When people die or are endangered, someone should be accountable. The word "hubris" comes to mind.

Jared Diamond is a wise man who, in his book *Collapse*, minutely examines some historic disasters and why they happened to one culture and not to another that superficially seems similar. He charitably allows that people were often using formulas for survival that had always worked before. Or that they were greatly distracted by religion or by wars. AND they could not IMAGINE the disaster that actually overtook them. We have to be smarter than that or we'll be gone, sooner than you think.

Which brings me to the Precautionary Principle, which requires the proponents of a new technology, process, activity or chemical to prove safety before its use, rather than putting the onus on the public or injured parties to prove harm afterward. Also, there must be examination of alternatives in advance of use. "Threats of harm to human health and the environment" should invoke precautionary measures even if some cause-and-effect relationships are not established with absolute scientific certainty." This is, I think, the truly adult attitude toward the essentially chancy nature of life and history.



BETTER SAFE THAN SORRY is how folk wisdom puts it. Make sure the drug is safe before you sell it to me. If the FDA operated with a decent regard to the precautionary principle, as it was designed to do, the public would be protected as it was supposed to be. Oh! I forgot! A drug company makes millions while consumers are playing the guinea pigs! Public Citizen recommends waiting six years after the introduction of a new drug before buying it. That lets the companies sort out all those issues of death or injury before you risk either. But why

should it be this way? Why should we have to be so careful while the pharmaceutical companies continue recklessly coining money?

And when will the selling of pesticides be subjected to this principle? And herbicides be banned from playing fields before there is a cancer cluster among former members of a student body? Oh, I forgot! That has already happened, here in East Hampton! When will herbicides and pesticides be banned for the "cosmetic" use of lawn care, in view of damning statistical evidence connecting them to human and animal cancers? (Yes, a local vet says there is a regular epidemic of dog cancer; if so, what about the children?)

"Absolute scientific certainty" is very close to impossible in the case of human cancers due to several things: the extremely long time it can take for cancer to develop (after 20 years who even remembers what he was exposed to?), the multiple exposures everybody has these days with so many carcinogens about, the great distance between statistical certainty (as with tobacco or asbestos) and certainty in any given case. Prudence once was thought a very great virtue; girls were named "Prudence" along with "Faith" and "Charity". Have we forgotten prudence? So there shall be no risk to profits for corporations or shareholders shall we risk human lives and health?

I say, no, BETTER SAFE THAN SORRY.