Can Too Much Safety be Hazardous? A Critical Look at the "Precautionary Principle"

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A recent issue of the journal "Science" focused on the dilemma posed by the so-called "precautionary principle," which has become enshrined in many international environmental treaties and regulations. The greatest source of controversy about the precautionary principle is its definition.

Our first introduction to the precautionary principle may have come from our mothers who told us it was better to be "safe rather than sorry", meaning we should buckle our seatbelts and throw out the left over food we forgot to refrigerate the night before.

In these cases—while there was no certainty that there was imminent risk to life and health—such caution made sense, because there was the real potential for risk. Unfortunately, there are other definitions of the precautionary principle which are not so benign.

In the worse case scenario of the application of the precautionary principle, advocates have recommended discarding a useful form of technology, for example pesticides or pharmaceuticals, even if there is just a hint of a problem For example, there are those who have recommended that a basic, health-enhancing chemical like chlorine be banned because of its questionable adverse effects on wildlife—or its effect in high dose laboratory animal experiments.

There are, however, at least two reasons why the precautionary principle itself, when applied in its extreme, is a hazard, both to our health and our high standard of living.

First, if we act on all the remote possibilities in identifying causes of human disease, we will have less time, less money and fewer general resources left to deal with the real public health problems which confront us. This does not mean that before we take prudent action to protect public health we have to dot every scientific "i" and cross every environmental "t". It does mean that we should not let the distraction of purely hypothetical threats cause us to lose sight of the known or highly probable ones.

Second, the precautionary principle assumes that no detriment to health or the environment will result from the proposed new banning or chemical regulation. For example, what are the known health risks from the current regulated use of chlorine? None. How great are the benefits? Enormous. What new health risks would we encounter if we were to ban chlorinated compounds because they "might" be harmful? Plenty.

Chlorine, for example, is the essential cornerstone of modern industrial chemistry. We need chlorine to disinfect our nation's water supply, make the agricultural pesticides that enable us to have a food supply rich in cancer-fighting fruits and vegetables, and to produce lifesaving pharmaceuticals.

When we apply the precautionary principle and focus on hypothetical risks and ponder what actions we might take "just in case", we leave the world of science and enter the realm of ideology. We allow ourselves to come under the spell of those who are motivated , for whatever reason, by a desire to return to what they perceive as a pre-industrial Garden of Eden.

These "what if" ideologues need to be reminded that wealth and industrial progress are associated with better, not worse health. Blanket applications of the precautionary principle ultimately would mean rejecting the modern technologies that have given us our enviable state of good health and longevity, and the freedom to enjoy it.

So what is to be done with those instances in which the risks are hypothetical and the costs of eliminating the technology substantial in terms of costs and lost human benefits? What should we do when confronted with the radical version of the precautionary principle? Go back to what Mom said: "When in doubt, throw it out".

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http://www.acsh.org/healthissues/newsID.236/healthissue_detail.asp