Issue 72

Risk

Is it possible to create a risk-free society? Identify risks you could eliminate from your own life by making personal choices.

Every day as a matter of habit, people continue to kill themselves by smoking cigarettes and driving without seat belts while at the same time being afraid of the relatively smaller health risks of artificial sweeteners, salt, and cholesterol. Unthinking habit, perhaps, but in other cases the decision to act or not to act required a conscious weighing of the consequences.

For example, in the spring of 1986, the European tourist trade collapsed due to the hijacking of the cruise ship, *Achille Lauro,* the bombing of a TWA jetliner over Greece, and the confrontation with Libya. People consequently feared traveling abroad. But during the entire preceding year only 23 Americans had been killed anywhere overseas by terrorists—not an unusual number—while close to 45,000 Americans were killed in motor-vehicle-related accidents here in the U.S. Would you have canceled or postponed a trip to Europe or the Middle East in the spring of 1986? Why?

As another example, two independent teams of scientists agree that the southern third of the San Andreas fault extending past San Bernardino, California, has a 25 percent chance in the next 20 to 25 years of having an earthquake as severe as the one that devastated San Francisco in 1906. What effect might this announcement have on real estate values and insurance rates in the area? Would you accept a good job that required you to live in the area?

If you are a responsible public official who has just learned from reputable seismologists that there is a 50 percent chance of a major earthquake destroying your town in the next few days, what should you do? What are the consequences if you do not act and the earthquake occurs? What happens if you do act and the earthquake does not occur?

Radon, an invisible, odorless, radioactive gas is produced by the radioactive decay of uranium in soil and rocks in scattered areas of the U.S.

When radon accumulates in poorly ventilated homes, its radiation can result in lung cancer. It is generally accepted that radon is responsible for about 10,000 of the nation's 130,000 annual lung cancer deaths. If you find that your home's basement has an unusually high concentration of radon gas, you or some other responsible person has to decide how much money to spend on renovation of your home. No one knows the probable cancer risk at a given level of radon exposure, but your failure to act will unquestionably increase your odds of getting lung cancer. Though you can reduce the risk, you can never eliminate it.

At what level of risk should the government subsidize corrective action in the homes of the impoverished? How do you feel about the construction of a nuclear power plant upwind from your town? Or about the radioactive waste and hazardous industrial chemicals that pose a danger to the communities through which it must be transported? Can you defend your opinion with reasons? (See "Radioactive Waste Disposal," p. 59.)

We frequently put values on our lives, as when we buy a lightweight car instead of a more expensive gas guzzler or decide not to install an expensive safety device as protection against an unlikely category of accident. Which would you rather have: an entirely safe job at $200 per week or a job at $1000 per week with a 1-in-10 chance of coming down with cancer within 20 years?

Consider this example: The spacecraft *Apollo 13* was launched from Cape Kennedy Space Center pad 39 (the third multiple of 13) at 1313 hours central time on its way to the moon. On the 13th of April, 1970, an explosion forced the craft to return to the earth, having barely escaped destruction. As the NASA official in charge of scheduling spacecraft and shuttle launches in the future, would you authorize a launch at 1313 hours on a Friday the 13th if the extreme pressures on the timing of launch made this the most appropriate moment? Why or why not? Remember the *Challenger* disaster!

Is it unethical for doctors or dentists to refuse to care for people infected with the AIDS virus for fear of contracting the disease themselves? Many doctors who do so argue that since the disease is *invariably* fatal, *any* risk is too high. Other doctors argue that many serious diseases are much more communicable.

Identify half a dozen hazards you consider most threatening to your health or safety. Try to rank them by probability. Is it practical to reduce their probabilities to zero?