

# The Risk of Talking About Risk

Contemporary discussions of risk contain a fruitful possibility. Addressing ways in which the broader effects of industrial production can damage environmental quality and endanger people's health and safety, such inquiries approach one of the most important questions that face modern society: are there justifiable limits to the application of today's scientific technology? But this promise will be difficult to realize, for the very introduction of risk as a common way of defining policy issues is far from a neutral development. Self-conscious risk assessment adds a distinctively conservative influence to public policy debate. It seems to me that under any foreseeable conditions in which this new art will be practiced, its primary effect will be to delay, complicate, and befuddle issues in a way that will sustain an industrial status quo relatively free of socially enforced limits.

## Risks vs. Hazards

With the rise of risk assessment in the 1970s, questions that had previously been talked about in such terms as the "environmental crisis," "dangerous side effects," "health hazards," and the like were gradually redefined as questions of "risk." The difference is of no small importance.

If we declare ourselves to be identifying, studying, and remedying hazards, our orientation to the problem is clear. First, we can assume that given adequate evidence, the hazards to health and safety are fairly easily known. Second, when hazards of this kind are revealed, agreement on what to do about them is readily available among all reasonable people. Thus, if we notice that a deep, open pit stands along a path where children walk to school, it seems wise to insist that the responsible party, be it a private person or public agency, either fill the pit or put a fence around it. Similarly, if we have good reason to believe that an industrial polluter is endangering our health or harming the quality of the land, air, or water around us, it seems reasonable to insist that the pollution cease or be strongly curtailed.

If, on the other hand, we declare that we are interested in assessing risks, a number of changes tend to occur in the way one proceeds. What otherwise might be seen as a fairly obvious link between cause and effect, e.g., air pollution and cancer, now becomes something fraught with uncertainty. What is the rela-

tive size of that risk, that chance of harm? And what is the magnitude of the harm when it does take place? In answering these questions, the risk assessor is constrained to acknowledge what are often highly uncertain findings of the best available research. Prudence becomes not a matter of acting effectively to remedy a suspected source of injury, but of waiting for better research findings. Although toxic chemicals themselves may have been disposed of in reckless fashion, scientific studies on the consequences must be done with scrupulous care. Action tends to be postponed indefinitely.

Frequently augmenting these uncertainties about cause and effect are the risk assessor's calculations on costs and benefits. How much is it reasonable to spend in order to reduce a particular risk? Is the cost warranted as compared to the benefit received? Informed about the ways that the cost of reducing environmental risks is likely to affect consumer prices, taxes, industrial productivity, and the like, the desire to act decisively with respect to any particular risk has to be weighed against other economic priorities.

A willingness to balance relative costs and benefits is present in the very adoption of the concept of risk to describe one's situation. In contrast, this disposition to weigh and compare is not announced by the concepts of danger, peril, hazard, and threat. Such terms do not presuppose that the source of possible injury is also a source of benefits. What does one do with a risk? Sometimes one decides to take it. What, by comparison, does one do with a hazard? Usually one seeks to avoid it or eliminate it.

The use of the concept of risk in business dealings, sports, and gambling reveals how closely it is linked to the sense of voluntary undertakings. An investor risks his capital in the hope of making a financial gain. A football team in a close game takes a risk when it decides to run on fourth down and a yard to go. A bettor at a Las Vegas blackjack table risks her money on the chance of a big payoff. In contrast to the concepts of danger, hazard, or peril, the notion of risk tends to imply that the chance of harm in question is accepted willingly in the expectation of gain.

Noticing that everyday life is filled with risky situations of various kinds, contemporary risk assessment has focused upon a set of psychological complications that further compound the difficulties offered by sci-

entific uncertainty and the calculations of risk/cost/benefit analysis. Do people accurately estimate the risks they actually face? How well are they able to compare and evaluate such risks? And why do they decide to focus upon some risks rather than others? Psychological research tends to show that people have a fairly fuzzy comprehension of the relative chance of harm involved in their everyday activities.

This research is often used to discredit the claims of those who focus upon the chance of harm from some particular source. Why should a person who drives an automobile, a notorious cause of injury and death, be worried about nuclear power or the level of air pollution? Invidious comparisons of this kind are sometimes employed to show that people's fears about technological hazards are completely irrational.

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This drift in some scholarly writings on risk assessment finds its complement in the advocacy advertising of corporations in the oil, chemical, and electric power industries. A typical advertisement from Mobil Oil's "Observations" series illustrates the way in which popularized risk psychology and risk/cost/benefit analysis can work in harmony with corporate goals. "Risky business," the ad announces. "Lawn mowers . . . vacuum cleaners . . . bathtubs . . . stairs . . . all parts of everyday life and all hazardous to your health. The Consumer Product Safety Commission says these household necessities caused almost a million accidents last year, yet most people accept the potential risks because of the proven benefits. . . . Risk in other words, is part of life." Its text goes on to evoke a string of psychological associations linked to the experience of risk in economic enterprise. "Cold feet. What America does need are more companies willing to take business risks, especially on energy, where the risks are high. . . . We're gamblers. . . . Taking risks: it's the best way to keep America rolling . . . and growing." Poker anyone?

There is a deep-seated tendency in our culture to appreciate risk taking in economic activity as a badge of courage. People who have qualms about occasional side effects of economic wheeling and dealing can easily be portrayed as cowardly and weak-spirited, namby-pambies just not up to the rigors of the marketplace. Our culture embraces risk taking as one of the warrior virtues. Those who do not possess this virtue should, it would seem, please not stand in the way of those who do.

### Avoiding the Risk Debate

The risk debate is one, then, that certain kinds of social interests can expect to lose by the very act of entering. Deliberations about risk are bound to have a strongly conservative drift. The conservatism to which I refer is one that upholds that status quo of production and consumption in our industrial, market-oriented society, a status quo supported by a long history of economic development in which countless new technological applications were introduced with scant regard to the possibility they might cause harm. Because industrial practices acceptable in the past have become yardsticks for thinking about what will be acceptable now and in the future, attempts to achieve a cleaner, healthier environment face an uphill battle.

One path through the mass of issues that characterize the risk debate is to take each one separately in its own right. For example, one might question how reasonable it is to apply the very strict standards of certainty used in scientific research to questions that have a strong social or moral component. Must our judgments on possible harms and the origins of those harms have only a 5 percent chance of being wrong? Doesn't the use of that significance level mean that possibly dangerous practices are "innocent until proven guilty"?

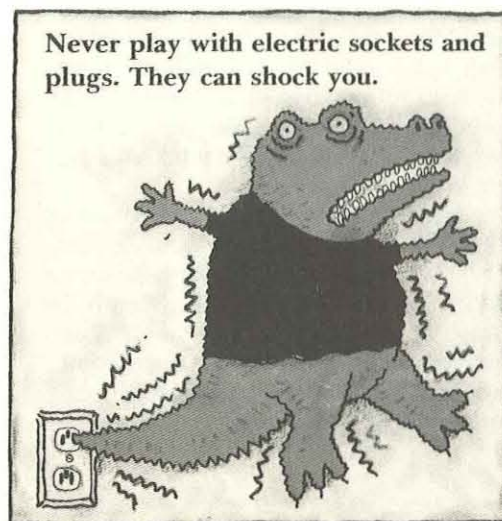
But for those who see issues of public health, safety, and environmental quality as fairly straightforward matters requiring urgent action, these exercises in methodological refinement are of dubious value. It is sensible to ask: why get stuck in such perplexities at all? Should we spend our time working to improve techniques of risk analysis and risk assessment? Or should we spend the same time working more directly to find better ways to secure a beautiful, healthy, well-provided world?

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Fortunately, many issues talked about as risks can be legitimately described in other ways. Confronted with any cases of past, present, or obvious future harm, it is possible to discuss that harm directly without pretending that you are playing craps. A toxic waste disposal site placed in your neighborhood need not be defined as a risk; it might appropriately be defined as a problem of toxic waste. New Englanders who find acid rain falling on them are under no obligation to begin analyzing the risks of acid rain; they might retain some Yankee stubbornness and confound the experts by talking about "that destructive acid rain" and what's to be

From: *Dinosaurs, Beware! A Safety Guide*

by Marc Brown and Stephen Krensky

*Hazards to be avoided—or risks to be balanced against benefits?*

done about it. A treasured natural environment endangered by industrial activity need not be regarded as something at risk; one might regard it more positively as an entity that ought to be preserved in its own right.

My point is, then, that a number of important social and political issues are badly misdefined by identifying them as matters of risk. Whenever possible, such misdefinitions ought to be resisted along with the methodological quagmires they bring in train. This is not to say that there are no issues of broad-scale social policy in which the concept of risk is legitimately applied. There are some applications of modern science and technology in which the uncertainty that surrounds suspect practices and their possible effects is so great that risk is an entirely suitable name for what is problematic. Recent worries about possible mishaps from the use of recombinant DNA techniques in scientific research and industrial applications seem to me a case in which the term was accurately applied. But there is, in our time, a willingness to cluster an astonishingly large range of health, safety, and environmental problems under this one rubric.

Two kinds of issues in particular strike me as territory that ought to be rescued from this tendency. First are our understanding of cases of actual harm — cancer, birth defects, other illnesses, deaths, damaged environments, and the like — obviously connected to profit-making industrial practices, yet sometimes treated as if their reality were merely probabilistic. We may visit the hospitals and gravesites if we need to. We may wander through industrial wastelands and breathe deeply. But let us not pretend our troubles hinge on something like a gentlemanly roll of dice, or that other people's sickness and death can be deemed acceptable from some august, supposedly neutral standpoint.

That only adds insult to injury.

Finally, there are times in which an issue that urgently needs to be addressed is poorly described (or not described at all) by subsuming it under the category of risk. A technology recognized above as an example of true risk in one context, recombinant DNA research and development, will be badly misconstrued if it is seen as nothing more than a risk question in another emerging context: public policy on genetic engineering. It is one thing to think about the prospect that a lethal bug might escape from the laboratory, quite another to ponder what it means to assume direct control of the evolution of the human species. Possibilities made available by the new biotechnologies are profound ones. But they are not questions of risk. It may happen, nevertheless, that because risk was the focus of discussion for the first decade of thinking about the ethical dimensions of recombinant DNA research and development, it will continue to shape discussions on this topic for years to come. We could see, for example, the application of moral rules of the following kind: unless the development of a new genetic configuration can be shown to involve substantial quantifiable risks, the development will be sanctioned for speedy implementation. If that happens, the shortcomings of today's discussions about risk will return to us with a vengeance.

—Langdon Winner

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