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## Science, Technology, and the Court

The case load of our court today predominantly involves challenges to federal administrative action relating to the frontiers of technology. Expanding health and safety regulations and increasing citizens' suits have drawn us toward a new era in which at least two aspects of public policy related to technology and risk pose unique problems.

First, cases of the new era touch on personal interest in health and safety. The quality of air, food, and water and the safety of autos, drugs, and power plants penetrate our ways of life and determine our well-being. Regulations in these areas raise the stakes and emotions higher than do the economic issues handled by the IRS, the FCC, and similar agencies.

Second, the new health and safety regulatory matters deal with imponderables. When it comes to the effect of chemical exposure on hormones, chromosomes, and the like, the experts acknowledge how little they agree, and how little they know. They disagree about acceptable measurement techniques and about the reliability of raw data. They disagree even more about the inferences to be drawn from the facts. Often, they can tell us only of "the risk of risk." And even if there were a scientific consensus about the factual magnitude of risks, painful choices would remain. How can economic dislocation, food shortages, and inadequate fire protection be weighed against possible future harm to health?

Courts must not be expected to resolve such questions. What judge knows enough to understand issues on the frontiers of nuclear physics, toxicology, and other specialties informing health and safety regulations? Courts also lack the political mandate to make the critical value choices which ultimately are reserved for the public. These decisions must be made by elected representatives or public servants legally accountable to Congress and the people.

I believe that the judicial responsibility is to monitor and scrutinize the administrative process. Our task is to ensure that the agency's decision-making is thorough and within the bounds of reason. The agency's decisional record must disclose the evidence heard, policies considered, and the agency's precise reasons for resolving conflicts in the evidence. This includes the basis for selecting one scientific point of view rather than another. This permits quality checks through peer review, legislative oversight, and public attention. Only if decision-makers disclose assumptions, doubts, and moral and political trade-offs can experts and citizens evaluate administrative action. Only then can professional peer review bring to light new data or challenge faulty assumptions. And only then can Congress and the people gain sufficient understanding to permit meaningful debate of the value choices implicit in regulatory action.

Acting independently of both expert and political debate, courts can compel full ventilation of the issues on the record, as well as accustom decision-makers to the discipline of explaining their actions. Finally, courts can ensure that all persons affected have opportunities to participate. The result should be an open process that can reveal gaps, stimulate research, and thereby inspire more confidence in those affected, including the scientifically untutored.

There is one more element of the court's function. By requiring opportunity for challenges, the courts protect the use of an adversary process at the administrative level, thus forcing differing people to join issue.

In resolving differences, "civility" in both its common meanings should prevail. The first is related to politeness and accepted norms of social behavior in civil society. Civility can set norms of honest discourse, promoting listening as well as talking. The second meaning I give to civility is the quality we strive for in the name of civilization, the ideal state of human culture where human beings are the measure of value and humankind is the subject of enhancement.—DAVID L. BAZELON, *Senior Circuit Judge, U.S. Court of Appeals for the District of Columbia Circuit, Washington, D.C.*