where in the nation, including two of the largest, the archdioceses of New York and Chicago.

According to a 1991 Gallup poll of adult Americans, 45 percent of Protestants and 51 percent of Catholics said they had gone to church the preceding week. The authors' own survey of Ashtabula County residents found that only 36 percent of Protestants claimed to have attended services. But head counts at the churches indicated that only 20 percent of the county's Protestants took part in services in an average week.

The result was similar in the 18 Catholic dioceses, where the authors found that, overall, on the basis of actual counts, only 28 percent of all parishioners went to weekly mass. Even that figure, for various reasons, is probably too high.

The authors conclude that Protestant and Catholic church attendance is roughly one-half the levels reported by Gallup. That suggests that total church attendance in the nation is only 20–25 percent. Without allowing for differences between reported and actual attendance in other countries (which appear to be much smaller), that puts Americans on a par, more or less, with Australians, Canadians, Belgians, and the Dutch. American "exceptionalism" in this case may come down to an exceptional belief that it is important to appear pious even if one is not.

The Two Mr. Mills

"Liberty: 'One Very Simple Principle' " by Gertrude Himmelfarb, in *The American Scholar* (Fall 1993), 1811 Q St. N.W., Washington, D.C. 20009.

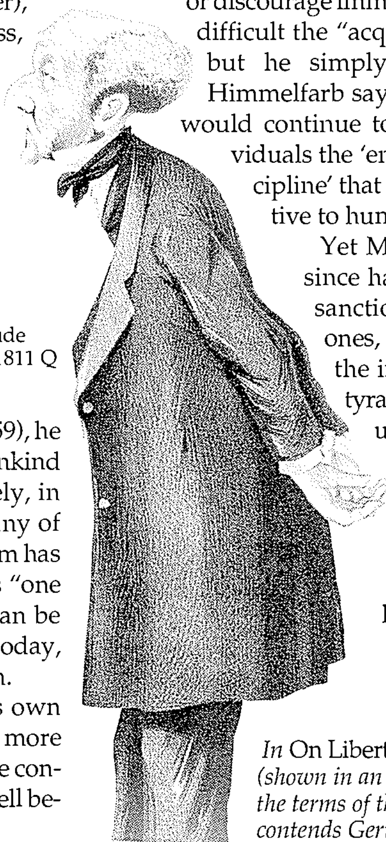
In John Stuart Mill's classic *On Liberty* (1859), he asserted that "the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection." Liberalism has come a long way since then, but in Mill's "one very simple principle" (as he called it) can be found the roots of many of its problems today, contends Himmelfarb, the noted historian.

"On Liberty was radical enough in its own time," she writes, "but it is, in a sense, still more radical in ours, because it seems to validate contemporary ideas about liberty which go well beyond those that Mill intended."

Although he favored absolute liberty of discussion, Mill had no doubt that truth exists and can be known. That was the point of discussion. But his doctrine lends itself to relativism, Himmelfarb points out. "Mill himself meant only to say that society cannot presume to decide between truth and falsity, or even to lend its support to truth once that has been determined. But a later generation, deprived of the authority of society and impressed by the latitude and tolerance given to error, can so relativize and 'problematize' truth as to deny the very idea of it." Thus, postmodernists today are skeptical even of contingent, partial, incremental truths.

Similarly, in moral affairs, Mill himself was not a relativist; he believed in the intrinsic superiority of chastity to promiscuity, sobriety to drunkenness, decency to indecency, altruism to self-interest. But he also believed, Himmelfarb says, that "morality is dependent upon a maximum amount of individuality." There should be no legal or social sanctions to promote morality or discourage immorality. He knew how difficult the "acquisition of virtue" is, but he simply took for granted, Himmelfarb says, "a civilization that would continue to impose upon individuals the 'eminently artificial discipline' that was the moral corrective to human nature."

Yet Mill and most liberals since have proscribed social sanctions along with legal ones, "stigmatizing both as the instruments of 'social tyranny.' In doing so, they unwittingly invite a worse tyranny, for legislation is then called upon to do what society might otherwise have done less obtrusively and



In On Liberty, *John Stuart Mill (shown in an 1873 caricature) "set the terms of the debate for our time," contends Gertrude Himmelfarb.*

more benignly."

In liberalism today, there is a disjunction between the moral and economic domains, the historian says. Mill's dictum that "trade is a social act" is carried to an extreme. Government regulation has been extended from business and commerce to so-called "social" issues, such as racial integration, sexual equality, and multicultural education. This "social paternalism" is combined with "moral individualism," Himmelfarb says, in a way that suggests a double standard. "Why is it proper for the government to prohibit insalubrious foods but not sadistic movies, to control the pollution of the environment but not of the culture, to prevent racial segregation but not moral degradation?"

Mill himself, Himmelfarb writes, "did not intend to advocate so complete a double standard, let alone so radical an inversion of values. He put a higher value and priority on moral goods than on material ones." In *On Liberty*, unfortunately, he unwittingly left the opposite impression. Liberals today, Himmelfarb concludes, need to go back to the "other" Mill and to the liberal tradition of Montesquieu, Madison, and Tocqueville. Absolute liberty, like absolute power, tends to corrupt absolutely—and, indeed, is "a grave peril to liberalism itself."

SCIENCE, TECHNOLOGY & ENVIRONMENT

Perilous Pond Scum

"The Toxins of Cyanobacteria" by Wayne W. Carmichael, in *Scientific American* (Jan. 1994), 415 Madison Ave., New York, N.Y. 10017–1111.

To scientists, the blue-green microorganisms are known as cyanobacteria; non-scientists more often call them by a different name: pond scum. By any name, the many forms of cyanobacteria that are toxic may be posing an increasing hazard to humans, warns Carmichael, a professor of aquatic biology and toxicology at Wright State University, in Dayton, Ohio.

The deadly pond scum was discovered in 1878 by an Australian investigator, George Francis. Scientists have since confirmed that some cyanobacteria are indeed poisonous and have caused mass deaths of animals. In the midwestern United States, for instance, migrating ducks and geese have perished by the thousands after consuming water contaminated by toxic cyanobacteria.

Scientists so far have found two basic types of toxic cyanobacteria. *Neurotoxins* attack the nervous system and, by inducing paralysis of the respiratory muscles, often cause death within minutes. *Hepatotoxins* damage the liver and can cause death within a few hours or days.

"No confirmed human death has yet been attributed to the poisons," Carmichael notes. "But runoff from detergents and fertilizers is altering the chemistry of many municipal water supplies and swimming areas, increasing the concentration of nitrogen and phosphorus. These nutrients promote reproduction by dangerous cyanobacteria." Water-treatment processes only partially filter out the microbes.

Some evidence, Carmichael says, suggests that certain of the toxins may contribute to the development of cancer. He and other researchers are carrying out a long-term study in areas of China where, they suspect, extremely high rates of liver cancer may be linked to cyanobacterial toxins in the drinking water.

Cyanobacteria are not all bad, Carmichael points out. They have provided scientists with insights into the origins of life. The microbes existed more than three billion years ago; because they were the first organisms able to convert carbon dioxide into oxygen, they "undoubtedly played a major part in the oxygenation of the air." Also, researchers think that the toxins and their derivatives may yield medicines to treat Alzheimer's disease and other disorders.

Some cyanobacteria—from the genus *Spirulina*—are even sold as a sort of health food. *Spirulina* itself is not harmful, but the practice worries Carmichael. There are no regulations