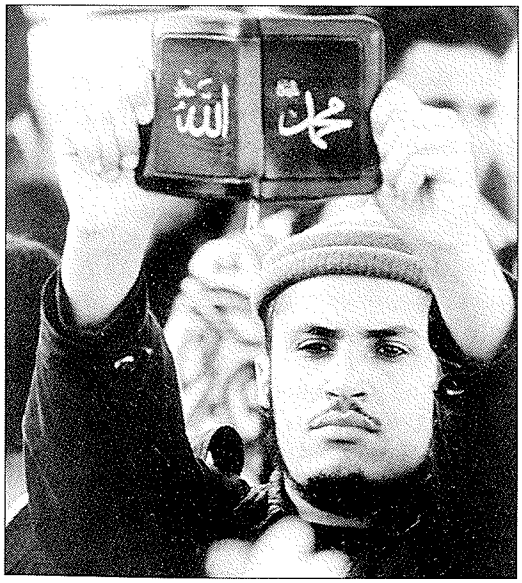
estant reformers in these ideas.

"For the enthusiasts of Islamic revivalism," Beedham notes, "as for men like John Wycliffe and Jan Hus in the years before the start of the Reformation, going back to the roots means a return to the presumed simplicities of the early days of the religion, a new embrace of the religion's first writings." Just as a multitude of sects came into being during the pre-Reformation period in Europe, so the Islamic revival has produced a large number of more-or-less autonomous groups devoted to good works (health clinics, canteens, basic schooling) in the slum-suburbs of the big Muslim cities.

Beedham sees further parallels. In the early 16th century, gold and silver imported from the New World had a destabilizing effect on Europe's economy, but the new riches offered the possibility of long-term prosperity; massive purchases of Arab oil by the industrialized world are having a similar impact in Muslim countries. Finally, just as cultural intercourse with the Arab empire long ago renewed Europe's connection with its intellectual roots in classical Greece, so today the flow of Western culture and technology into the Islamic world may foster great intellectual change. And it may not take as long to happen. New ideas now travel faster, Beedham observes, "and the people of today's Muslim countries are on the whole much readier to absorb" them than were the pre-Reformation Europeans.



*Are Islamic rebels on the march to power in Algeria?*

## *The Strength Of Strictness*

"Why Strict Churches Are Strong" by Laurence R. Iannaccone, in *American Journal of Sociology* (Mar. 1994), 5835 S. Kimbark, Chicago, Ill. 60637.

While membership in virtually all of the "mainline" Protestant churches has declined during the last three decades, the ranks of Mormons, Pentecostals, and other more conservative denominations have rapidly expanded. Iannaccone, an economist at California's Santa Clara University, claims that their secret is in their strictness.

"Strict churches proclaim an exclusive truth—a closed, comprehensive, and eternal doctrine," he notes. "They demand adherence to a distinctive faith, morality, and lifestyle. They condemn deviance, shun dissenters, and repudiate the outside world. They frequently embrace 'eccentric traits,' such as distinctive diet, dress, or speech, that invite ridicule, isolation, and persecution." Mormons abstain from alcohol and caffeine, Jehovah's Witnesses refuse blood transfusions, and Seventh-Day Adventists avoid eating meat. Why, the economist asks, would a rational person not turn to one of the less demanding faiths in the religious marketplace?

The answer, he argues (leaving theological questions aside), is that the strictness serves a rational purpose: It screens out "lukewarm" adherents. They are what economists call "free riders," who take more than they give. "Church members may attend services, call upon the pastor for counsel, enjoy the fellowship of their peers, and so forth, without ever putting a dollar in the plate or bringing a dish to the potluck [supper]." Their presence in the congregation reduces the collective levels of participation and enthusiasm. "One need not look far," Iannaccone says, "to find an anemic congregation plagued by free-rider problems—a visit to the nearest lib-

eral, mainline Protestant church usually will suffice." By getting rid of the free riders, the strict churches become stronger—and more attractive. "Strictness works," Iannaccone declares.

It can be carried too far, however. "Even though hundreds were willing to join the Bhagwan Rajneesh in Antelope, Oregon, few would have followed him to the Arctic Circle," Iannacone says. Many small sects wither and die because they impose excessive demands. A 1985 study of more than 400 sects found that 32 percent never increased their membership from what it was on the day they were launched; only six percent grew rapidly. For a strict sect or church to thrive, Iannaccone concludes, it has to know when to relax its strictures a bit.

## SCIENCE, TECHNOLOGY & ENVIRONMENT

### Will the Endangered Species Act Survive?

*A Survey of Recent Articles*

Last June, an American bald eagle, found months earlier with a broken wing and nursed back to health, was set free in Maryland near the Chesapeake Bay. As the majestic creature soared into the sky, it carried even more than the species' usual symbolic weight: The bird had been given the name "Hope," and its release was timed to coincide with an announcement by the U.S. Fish and Wildlife Service that the American bald eagle—that venerated emblem of the nation—was no longer "endangered," merely "threatened." In 1974, there were only 791 known nesting pairs of bald eagles in the continental United States, but now, 20 years later, there are about 4,000. Credit was given to the Endangered Species Act (ESA) of 1973, which protects animal and plant species at risk of extinction and their "critical habitats." The controversial law, the Fish and Wildlife Service wanted it understood, had worked.

In fact, however, it appears that the ESA—which is now up for reauthorization in Congress—has not been very effective. In an evaluation in *Science* (Nov. 12, 1993), Timothy H. Tear and Patricia H. Hayward of the University of Idaho's Department of Fisheries and Wildlife Resources, along with two colleagues from the U.S. Fish and Wildlife Service, J. Michael Scott and Brad Griffith, write: "Few [endangered] species have actually recovered because of the ESA." Even the bald eagle may not owe its survival to the ESA. Thomas Lambert and Robert J. Smith, in the Center for the Study of American Business's *Policy Study No. 119* (March 1994), contend that it was not the ESA but the 1972 ban on DDT, a pesticide thought by scientists to interfere with the eagle's reproductive capacity, that saved the bird.

There is no question that the ESA, along with earlier laws, has fallen far short in its rescue mission. Of the 1,354 species (822 native to the United States) listed as endangered or threatened since 1966, only 19 have been removed from the list, including eight that were listed in error and seven that became extinct. The four apparent success stories were a plant found in Utah and three birds native to an island in the western Pacific. A 1990 General Accounting Office (GAO) report found that more than 80 percent of the listed endangered species were still declining. A 1992 GAO report found that federal authorities had managed to designate "critical habitats" for only 105, or 16 percent, of 651 listed species.

Recovery plans are supposed to be made for each of the threatened or endangered species; about 400 such plans have been drawn up. Examining those available in 1991, the *Science* authors found that 28 percent of the species for which population data could be obtained "had recovery goals set at or below the existing population size at the time the plan was written." The original recovery plan for the endangered Cali-