

Misguided Scientism

The Surgical Solution. A History of Involuntary Sterilization in the United States. PHILIP R. REILLY. Johns Hopkins University Press, Baltimore, MD, 1991. xviii, 190 pp. \$19.95.

Philip Reilly's *The Surgical Solution* should be required reading for legislators and biomedical policy-makers who are not familiar with the history of sterilization abuse in the United States. Although the story has been told before in histories of the eugenics movement, Reilly provides the best-documented and most detailed account of the involuntary sterilization of institutionalized persons and definitively demonstrates that "society has sometimes not hesitated to pursue what it perceived to be cost-saving measures at the expense of personal liberties." He urges us not to dismiss his chronicle of sterilizations performed in the name of eugenics or economy as " quaint tales of a bygone era" but insists that we must "remember that in the name of science not so long ago, sixty thousand American citizens were subjected to eugenic sterilization. We must forever guard against the kind of flawed thinking that supported this activity" (p. 165).

The flawed thinking of eugenicists has been extensively analyzed by historians. Benchmarks in the literature include Mark Haller's *Eugenics: Hereditarian Attitudes in American Thought* (1963), Daniel Kevles's *In the Name of Eugenics: Genetics and the Uses of Human Heredity* (1985), Raymond Fancher's *The Intelligence Men: Makers of the IQ Controversy* (1985), and Barry Mehler's doctoral dissertation on the eugenics network in the United States (Washington University, St. Louis, 1987). Although the eugenics movement enlisted a relatively small number of individuals, they included influentials in the rise of such learned professions as medicine and social work and key figures in the creation of the academic research establishment in the United States. Although eugenicists failed to gain firm political support for their programs of social control, they did shape the discussion of policy issues ranging from the sources of social dependency to the restriction of mass immigration to the sterilization of persons deemed mentally deficient. Their concerns and vocabulary persist in contemporary de-

bates over the relative importance of heredity and environment in human affairs and in our efforts to explain inequality among ethnic groups.

Reilly's contribution to the large, distinguished, and disturbing literature on eugenics is to emphasize the continuing influence of naive Mendelianism on those who were responsible for the care of the inmates of mental hospitals and prisons. Significant numbers of American physicians, legislators, and policy-makers embraced crude biological explanations for the plight of the mentally deficient or socially deviant long after it had been definitively demonstrated that hereditary defect could not explain the great majority of such cases and that no program of involuntary sterilization would have significant eugenic effect. In 1960, 97 persons were involuntarily sterilized in Virginia's public hospitals, and Reilly makes it clear that this fact should not be seen as an example of southern reactionism but as a representative example of national progressive reform gone sour. He makes a convincing case that we are capable of repeating the errors of the past, but a more optimistic interpretation of Reilly's history is possible.

By the 1980s both the courts and the United States Department of Health, Education and Welfare had issued stringent guidelines that clearly placed those who sought to coerce the dependent or deviant into sterilization outside the pale of established professional practice or prevailing ethical standards. The eugenics movement had proven to be an utter failure by its own standard, the improvement of the national gene pool through selective breeding. By the end of his narrative, Reilly seems to have run out of domestic examples of sterilization abuse and cites examples of coercive practices in India and China for our instruction. Though Reilly's prediction that "proposals to coerce people into submitting to sterilization will continue to arise" is well founded, current debates involve the "right to sterilization" and the limits of individual freedom to reproduce regardless of the social consequences. As Reilly cautiously observes, "The era of involuntary sterilization for eugenic reasons seems over" (p. 160). Unfortunately, our current standards cannot provide

consolation to the 60,000 victims of error and social prejudice on the part of 20th-century American professional leaders, whose misguided scientism rationalized evil practices.

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A Fish That Gets Away

Living Fossil. The Story of the Coelacanth. KEITH STEWART THOMSON. Norton, New York, 1991. 252 pp., illus. \$19.95.

The elder Pliny was prescient in stating, "There is always something new out of Africa." The capture of a living coelacanthid fish off South Africa in 1938 was the stuff of dreams. Presumed extinct for nearly 80 million years, the curious creature was named *Latimeria chalumnae* by J. L. B. Smith of South Africa and was variously heralded as a "missing link" and a "living fossil." It was hoped that this holdout from the Cretaceous would provide an opportunity to look back to the transition from fish to amphibians, for it was then held by many biologists that ancient coelacanths were the sister group to the tetrapods. Subsequent discoveries have not supported that hypothesis; however, the events and personalities of the last 53 years have provided one of the most fascinating biological dramas of the 20th century. Thomson has reported this, albeit incompletely and not without bias, in a volume that is of general interest to naturalists.

Thomson's vantage is that of a student of fossil fishes and the fortunate recipient of the first frozen *Latimeria* for proper study, which provided him and his colleagues an opportunity to make several extraordinary discoveries, beginning with Grace Pickford's finding that "it has the blood of a shark." Beyond the general biology of *Latimeria*, this volume contains the drama of the first and subsequent captures from the Comores; a discussion of the "living fossil" concept; an explanation of continental movements from Pangea to the present; an account of the early French researches; an analysis of coelacanth swimming aided by the extraordinary underwater photographs taken by Hans Frick; a brief discussion of coelacanth-tetrapod relationships; and a ponderous sermon about conservation.

What is not accomplished is an adequate treatment of the controversy concerning *Latimeria* relationships. Coelacanth phylogeny is still argued and debated. The hypothesis that *Latimeria* is the closest living relative to the tetrapods finds support in some paleon-