

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Science serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated.

Editorial Board

1969

EMIL HAURY	KENNETH S. PITZER
WILLARD F. LIBBY	ALEXANDER RICH
EVERETT I. MENDELSON	CLARENCE M. ZENER
JOHN R. PIERCE	

1970

GUSTAF O. ARRHENIUS	RICHARD C. LEWONTIN
FRED R. EGAN	ALFRED O. C. NIER
HARRY F. HARLOW	FRANK W. PUTNAM
MILTON HARRIS	

Editorial Staff

Editor

PHILIP H. ABELSON

Publisher

DAEL WOLFLE

Business Manager

HANS NUSSBAUM

Managing Editor: ROBERT V. ORMES

Assistant Editors: ELLEN E. MURPHY, JOHN E. RINGLE

Assistant to the Editor: NANCY TEIMOURIAN

News Editor: JOHN WALSH

Foreign Editor: DANIEL S. GREENBERG*

News and Comment: LUTHER J. CARTER, BRYCE NELSON, PHILIP M. BOFFEY, MARTI MUELLER, JOEL R. KRAMER, SCHERRAINE MACK

Research Topics: ROBERT W. HOLCOMB

Book Reviews: SYLVIA EBERHART

Editorial Assistants: JOANNE BELK, ISABELLA BOULDIN, ELEANORE BUTZ, GRAYCE FINGER, NANCY HAMILTON, OLIVER HEATWOLE, ANNE HOLDSWORTH, PAULA LECKY, KATHERINE LIVINGSTON, VIRGINIA NUSSLE, PATRICIA ROWE, LEAH RYAN, LOIS SCHMITT, BARBARA SHEPPER, RICHARD SOMMER, YA LI SWIGART, ALICE THEILE

* European Office: 22 Mulberry Walk, London, S.W. 3, England (Telephone: 352-9749)

Advertising Staff

Director

EARL J. SCHERAGO

Production Manager

KAY GOLDSTEIN

Advertising Sales Manager: RICHARD L. CHARLES

Sales: NEW YORK, N.Y. 10036: Robert S. Bugbee, 11 W. 42 St. (212-PE-6-1858); SCOTCH PLAINS, N.J. 07076: C. Richard Callis, 12 Unami Lane (201-889-4873); MEDFIELD, MASS. 02052: Richard M. Ezequille, 4 Rolling Lane (617-444-1439); CHICAGO, ILL. 60611: Herbert L. Burkland, Room 2107, 919 N. Michigan Ave. (312-DE-7-4973); BEVERLY HILLS, CALIF. 90211: Winn Nance, 111 N. La Cienega Blvd. (213-657-2772)

EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phone: 202-387-7171. Cable: Advancesci, Washington. Copies of "Instructions for Contributors" can be obtained from the editorial office. See also page 7, *Science*, 4 July 1969. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE-6-1858.

Law and Science

The Supreme Court of California last month reversed a conviction for abortion in a decision that will be closely studied by persons interested in abortion laws and that may have a larger import for invalidating other laws that were enacted under conditions quite different from those that now obtain.

In 1966 an unmarried young woman requested an abortion from a Los Angeles physician. He refused, but after a highly emotional scene in which she threatened to go to Tijuana for a criminal abortion, he did give her the telephone number of an unlicensed physician whom he knew to be performing skilled and safe abortions. A police raid led to trials and convictions of both physicians. The Supreme Court of California has now reversed the conviction of the referring physician.

At the time of the abortion, California law prohibited efforts to procure the miscarriage of a woman "unless the same is necessary to preserve her life." The Court's decision centered on the difficulty of determining the meaning of these nine quoted words (which are identical with or similar to words in the laws of many states), and on the difference between conditions in 1850 when the law was enacted and in 1966 when the abortion was performed.

In 1850, the Court noted, any abortion was extremely dangerous. Now, in contrast, "although criminal abortions [such as the woman threatened to have performed] are the most common single cause of maternal deaths in California," it is "safer for a woman to have a hospital therapeutic abortion during the first trimester than to bear a child." The conclusion was reached that, although the validity of the statute when enacted could be assumed, advances in medical skill and knowledge had made it constitutionally invalid now.

Moreover, the Court concluded that the quoted words were not susceptible of any interpretation that provided satisfactory guidance to a conscientious physician; that the law delegated responsibility to the physician but biased his decision, for any abortion always put him in jeopardy while the contrary decision never did; and that this delegation to a directly interested party violated the Fourteenth Amendment.

Since the Brandeis Brief of 1908 (in *Muller vs. Oregon*), the accumulation of new knowledge has sometimes been used to overthrow previous statutes or decisions, most notably in the Supreme Court's 1954 decision outlawing segregated schools. Although there is no novelty in the idea that new conditions may call for new laws, this decision nevertheless provides another reminder of the Supreme Court of the United States' 1898 statement that "the law is to a certain extent a progressive science," and calls attention to other situations in which advancing knowledge will have to be reflected in legal changes. The ability to artificially continue respiration and circulation after all signs of life in the brain have disappeared raises problems concerning the legal definition of death and concerning conditions under which organ transplants may be permitted. Organ transplants and their substitutes, such as the artificial kidney, pose questions of entitlement that were meaningless a few years ago. The prevalence of criminal use of guns (which may help provide organs for transplant) casts doubt on the wisdom of retaining the Second Amendment's declaration that the right "to keep and bear arms shall not be infringed." There is a whole web of issues on which advancing medical, technological, sociological, or psychological knowledge does, should, or perhaps will argue for legal change. The California Supreme Court has shown a judicial willingness to listen to the scientific evidence.—DAEL WOLFLE