

To Witness and Heal: What Science Can Do to Respond to Human Rights Abuse

These are stories of despair and hope, and of what science can do to help.

N.A. was a prisoner in Tehran. One day a guard led him to a prison wall known to be an execution site and told N.A. he would be killed. The guard turned the man toward the wall, pulled his hair and pushed a gun barrel against his skull. N.A. heard the gun cock, the trigger slide, the hammer snap forward. But the gun was empty. When N.A. was freed and resettled in the United States, he tried to drown his memories in alcohol.

Mrs. Trinidad Herrera, a community organizer in the slums of Manila, was arrested by Philippine authorities, stripped, and wired to an army crank telephone. Her interrogators applied electric shocks to sensitive parts of Herrera's body until she signed a prepared confession of illegal acts.

These people—and tens of thousands of other individual men, women, and children—are at the heart of two new books written with the support of the American Association for the Advancement of Science's (AAAS) Science and Human Rights Program.

Serving Survivors of Torture, by Glenn R. Randall and Ellen L. Lutz (AAAS Press, 1991), is the "first systematic overview of treatment approaches" for health professionals and other service providers working with this troubled population, according to Douglas Johnson, executive director of the Center for Victims of Torture in Minneapolis.

Human Rights and Statis-

tics: Getting the Record Straight, edited by Thomas B. Jabine and Richard P. Claude (University of Pennsylvania Press, 1992), describes what the editors say are "ways to show how [human rights] abuses represent policies rather than individual aberrations."

Both books reflect "program emphases that have been part of [the AAAS Human Rights Program] from the very beginning," says program director Audrey Chapman.

Glenn Randall is a physician in Los Angeles who also works with torture survivors. Ellen Lutz is the California director of Human Rights Watch. It took the couple 5 years to research and write their book, *Serving Survivors of Torture*.

"There are next to no services for survivors of torture," says Lutz. "This book is a practical manual based on research with a wide variety of torture survivors that should provide a solid introduction to what *any* health care provider can do to help."

The book's 11 chapters and five appendices define the problem, describe what physical and psychological ailments are likely to afflict the torture survivor, and discuss ways to document and treat the person's trauma.

Obstacles abound, say the authors. Survivors rarely identify themselves as such, and their stories are often difficult for Americans to listen to or even believe. There are cross-cultural barriers as well, such as the tendency of some Asians to feel they are responsible for their suffering because of their karma.

Nonetheless, the need is real. Since 1945, more than 2 mil-

lion immigrants and hundreds of thousands of illegal refugees have entered the United States, many from countries plagued by human rights abuses.

"These persons are at an increased risk for...infectious disease, malignancies, strokes, and heart disease," write Randall



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—Audrey Chapman
Director, AAAS Science and Human Rights Program

and Lutz, "and are prone to psychosomatic complaints, depression,...[and] post-traumatic stress disorder."

While Randall and Lutz want to help individual survivors of torture, the authors of *Human Rights and Statistics* want to gather individual stories into larger, quantified accounts that can document—and perhaps help stop—human rights abuse on a large scale.

The book's two editors write that "an individual case, although irreducible in its importance, does not evidence a pattern or policy. But in combination with other cases, it creates a moral imperative...."

Thomas Jabine is an independent statistical consultant who has worked with the United Nations. Richard Claude is a political science professor at the University of Maryland. Together with 22 other experts in the fields of political science, public health, law, forensic anthropology, and statistics, they suggest ways to develop and analyze statistically credible data on human rights abuses.

The book's "unique contribution," says Chapman, lies in its attempt to "operationalize human rights and make it possible to monitor their abuse."

Operationalizing human rights isn't easy, of course. As political science professor Robert Justin Goldstein writes in chapter 2, "Human rights abuses may be as diverse as 'banning' in South Africa, congressional antisubversive investigations in the United States, [and] house arrests in South Korea."

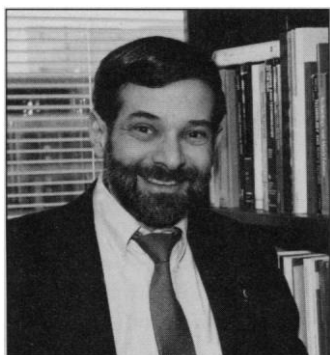
What's more, gathering data in the shadow of restrictive regimes is arduous, if not downright dangerous. Even when reliable data can be acquired, how should it be interpreted? For example, low figures for political prisoners may in fact reflect conditions so oppressive as to stifle all opposition, notes Goldstein.

And yet, though not perfect, statistics can make a difference in the struggle for human rights, claim the authors, who provide examples ranging from lynchings in the United States to burials of the "disappeared" outside of Buenos Aires. The final chapter lists 29 human rights databases already available to researchers.

For more information about the new books, contact the AAAS Science and Human Rights Program, 202-326-6790. ♦

Congress Boosts Funding for Science

The scientific enterprise has friends in high places. In one of the tightest fiscal years in recent memory, federal legislators have boosted overall funding for scientific research and development by a healthy 10% for 1992.



Albert H. Teich, Director, AAAS Directorate for Science and Policy Programs.

That's the gist of a new analysis now available from AAAS: *Congressional Action on Research and Development in the FY 1992 Budget* is the year-end companion volume to the March 1991 AAAS report outlining President Bush's budget requests for 1992. The two documents, which comprise an annual series tracking each year's federal R&D funding trends, are the work of Albert H. Teich, Stephen D. Nelson, and Kathleen M. Gramp of the AAAS Directorate for Science and Policy Programs, and the 22-member Intersociety Working Group.

Some of the key conclusions of the new report:

- Compared to other R&D sponsors, the Department of Energy saw the biggest jump in its R&D budget—14.1%, with a hefty chunk slated for the Su-

perconducting Super Collider.

- NASA's overall budget rose merely 3.3% from 1991, and other agency projects were raided to support the proposed space station.

- Funding for the National Science Foundation's R&D rose 11.2%.

- The Defense Department received almost \$150 million more than Bush requested—enough for an 11% jump in development spending (largely for a refocused Strategic Defense Initiative) and an 8.3% rise in research.

The report also includes an overview of the forces shaping this and future R&D budgets, including a growing desire within Congress to break through the spending walls erected between the defense and domestic budgets by the 1990 Budget Enforcement Act.

For a copy of the report, write to AAAS Books, Dept. A32, P.O. Box 753, Waldorf, MD 20604, or call 301-645-5643. ♦

AAAS Fellow Nominations

Groups of three AAAS Fellows may nominate other AAAS members for election as Fellows. A Fellow is "a member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished." At least one of the three sponsors must be unaffiliated with the nominee's institution.

Nomination forms are available from the AAAS Executive Office, 1333 H Street, NW, Washington, DC 20005, or 202-326-6635. The deadline for receipt of nominations is 5 June 1992. The *Directory of AAAS Fellows* is also available,

and may be purchased from AAAS Books, P.O. Box 753, Waldorf, MD 20604 (member price: \$9.95, prepaid). ♦

1992 AAAS Dues

1992 dues rates are as follows: Regular, \$87; Post-Doctorate, \$62; Student, \$47; Emeritus (receiving *Science*), \$47; Emeritus (without *Science*), \$35; and Spouse, \$35.

Library and institutional subscriptions are \$195. International member dues include an additional postage charge for the weekly mailing of *Science*. Bills for members in Canada and California reflect a higher rate that includes appropriate national, state, and local taxes, as required by law.

For more information, contact the AAAS Membership Office at 202-326-6417. ♦

AAAS Award Winners

The Association's annual awards to deserving scientists, engineers, public servants, and journalists will be presented on Saturday, 8 February at the AAAS annual meeting in Chicago. The prizes and winners are:

- **AAAS Hilliard Roderick Prize** in science, arms control and international security, to **Will D. Carpenter**, of Monsanto Agricultural Co., and to **Robert P. Mikulak**, of the U.S. Arms Control and Disarmament Agency.

- **AAAS Mentor Award** for leadership in efforts to increase the participation of women, minorities, and people with disabilities in science and engineering, to **Anthony J. Andreoli**, professor of biochemistry at the California State University at Los Angeles, and to **Lafayette Frederick**, chairman of the Department of Botany at Howard University in Washington, D.C.

- **AAAS Newcomb Cleveland Prize** for the year's best research article in *Science*, to **Stephen P. A. Fodor**, **J. Leighton Read**, **Michael C. Pirrung**, **Lubert Stryer**, **Amy Tsai Lu**, and **Dennis Solas**, co-authors of "Light-Directed, Spatially Addressable Parallel Chemical Synthesis."

- **AAAS Philip Hauge Abelson Prize** for a public servant making exceptional contributions to the advancement of science or for a distinguished scientist, to **Bentley Glass**, editor emeritus of *The Quarterly Review of Biology*.

- **AAAS Prize for Behavioral Science Research** for the author(s) of a commendable paper in the behavioral sciences, to **Gerd Gigerenzer**, professor of psychology at the University of Salzburg in Austria and author of, "From Tools to Theories: A Heuristic Discovery in Cognitive Psychology."

- **AAAS Scientific Freedom and Responsibility Award**, to **Inez Austin**, senior engineer at the Hanford Nuclear Reservation in Richland, Washington.

- **AAAS-Westinghouse Award for Public Understanding of Science and Technology**, to **Stephen H. Schneider**, of the National Center for Atmospheric Research in Boulder, Colorado.

- **AAAS-Westinghouse Science Journalism Awards**, to the *Newsday* team of **B. D. Colen**, **Robert Cooke**, **Earl Lane**, **Peter Marks**, and **Laura Muha** (newspapers over 100,000 daily circulation); *The Scientific American's* **John Horgan** (magazine); *WBUR-FM's* **David H. Baron** (radio); and **William Kurtis** of Kurtis Productions, Ltd., and **Leslie Reinherz** of the Chedd-Angier Production Company (television).

- **John P. McGovern Award Lecture in the Behavioral Sciences**, to **Eric Kandel**, professor of psychiatry at Columbia University in New York.

- **William D. Carey Award Lecture** for leaders in the articulation of public policy issues regarding the application of science and technology, to **Mary Good** of Allied Signal Corporation. ♦