

ROALD HOFFMANN

Why Scientists Shouldn't Run the World

Listening in on the easy private banter of scientists, one hears deprecation of the politicians who run this world and wishful claims for the rationality of science. If only the scientific approach were applied to the way countries are governed, it is supposed, the world's problems would vanish.

Some of this talk can be dismissed as self-serving, fraternal kibitzing. But much of it reveals a primitive and flawed world view—a fallacy that cuts across cultures and political systems. Confused, even hurt, by the complexity of the world they live in, scientists reach, naively, for the dream that the wild universe of emotions and collective actions is governed by some rational principles, still to be discovered.

A rational dream

Scientists typically define for themselves a universe of study in which the outcome may be intricate and surprising but in which there is no doubt that an analysis is possible: Complexity is simplified by decomposition, and there is always a solution. Scientists admit that many factors may contribute to a single result or effect, but no matter

*Scientists' rationality
makes for
good counsel
but poor
political leadership.*

how complicated, they can be analyzed by clever, appropriately trained initiates communicating in a universal language.

Contrast this carefully constructed world of the scientist-at-work with the haphazard reality of most other human institutions and situations. What are the causes of teenage crack addiction? Should we have affirmative action programs? What is the logic of romantic love? Why do Romanian nationalists in Soviet Bessarabia seek to keep Russians and Jews, even those who have lived there for decades, out of the university?

Much of the real world out there is not amenable to simplistic (or complex) scientific analysis. That world—life itself—does lend itself to ethical and moral debate, to claims of justice and compassion. When it comes to the resolution of personal and societal problems, a

clear statement of issues, alternatives, and consequences can help, but the existence of unique rational solutions is just a dream.

We've recently witnessed the failure of one such technocrat-run dream—Marxism. This "scientific" social system, powered by the myth of infinite progress and cast in the capability of humans to transform society as they had transformed nature, has been truly non-sectarian in its dismal inability to live up to expectations. Whatever culture it has overlain—Russian, Chinese, Cuban—Marxism has proven itself economically unworkable and has even perverted its just social core by showing itself to be infinitely corruptible. Ironically, in the Soviet Union and China, that theory was largely implemented by men and women trained in science and engineering. In the USSR in 1986, for example, 89 percent of the members of the Communist Party's Politburo were the products of such training.

The arts and humanity

It seems to me that scientists are at their best when they are out of power but still engaged in the political process. Then they are motivated to speak as the voice of reason: to give sound advice, to counter ascendant irrationality. Their competence meshes with the

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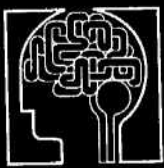
demands of the role they play. But were they in command I think their *hubris*—that they, and only they, are reasonable—is likely to lead them to unfeeling excess.

Where should the capacity to deal with the real, partially coherent world come from? In large part from the ethical, literary, historical, artistic realm. From the arts and humanities. Not just salve on mental pain, the arts and human-

ities leaven and enrich. As they make us think, they make us feel at one with the terrible and beautiful world. And they prompt us to step outside of ourselves, to empathize.

Some scientists I know, intoxicated by that powerful soluble world they've constructed, disparage the fuzziness of the artistic enterprise and resent the time their students must spend on it. God forbid an engineering curriculum

should stretch to five years to fit a few more humanities courses into the schooling of a young man or woman racing to earn \$35,000 a year at age 22! After all, the "soft" issues in the arts and humanities have not been solved, nor are they capable of solution—at least not in the scientific sense. But they are critical, as they have been throughout human history, for our spiritual survival.



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ETHICAL ISSUES IN RESEARCH

GEORGETOWN UNIVERSITY, WASHINGTON DC

April 29, 1991

Introductory Remarks

Darwin L. Cheney (Washington, DC)

Plenary Address

Zbigniew Bankowski (Geneva, Switzerland)

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Misrepresentation of Data: U.S. and International Perspectives

Paul J. Friedman (La Jolla, CA)
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Jules V. Hallum (Bethesda, MD)
Patricia Woolf (Princeton, NJ)
Albin Eser (Freiburg, F.R.G.)
Vittorio Sgaramella (Pavia, Italy)
Raymond Hoffenberg (Oxford, UK)

Session II

Role of Authorship

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Addeane Caelleigh (Washington, DC)
Edward J. Huth (Philadelphia, PA)
Eleanor Butz (Washington, DC)
Sharon Boots (Washington, DC)

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Conflict of Interest

David Korn (Stanford, CA)
Barbara Mishkin (Washington, DC)
Roger Porter (Bethesda, MD)
Kern Wildenthal (Dallas, TX)
Barbara Hansen (Baltimore, MD)

Session IV

Scientific Response to External Pressures

Use of Embryos and Fetuses

Clifford Grobstein (La Jolla, CA)
James Bopp (Terre Haute, IN)

Use of Animals

T. David Marshall (Ottawa, Canada)
Mark Matfield (London, U.K.)

General Information

Site: The Georgetown University Conference Center and Guest House (Thomas and Dorothy Leavey Center) located on Campus.

Registration Fee: US \$100.00; US \$50.00 for students and postdoctoral fellows; no charge for press. Registered participants are entitled to printed materials of the symposium and working lunches on the two days of the symposium.

Accommodations: A number of rooms have been reserved for participants at the Georgetown University Conference Center and Guest House.

Proceedings: Symposium proceedings will be available in the "Fidia Research Foundation Symposium Series."

Further information and a preliminary program (available January 1991) can be obtained from: Fidia Research Foundation, 1640 Wisconsin Avenue, N.W., Suite 2, Washington, DC 20007. Phone: 202/337-7185; Fax: 202/337-7188.