

David A. Hamburg: President-Elect of AAAS

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David Alan Hamburg is the president-elect of the AAAS, scheduled to assume office as president at the annual meeting in May 1984. Hardly a newcomer to association affairs, he has been a member of AAAS for many years and was elected to its Board of Directors in August 1980.

Hamburg was born on 1 October 1925 in Evansville, Indiana, and attended the University of Indiana and its medical school, receiving his M.D. in 1947. He interned at Michael Reese Hospital in Chicago, and did residency work there and at Yale's department of psychiatry. He did military service as a psychiatrist at Brooke Army Hospital in San Antonio, Texas, and began his research career at the Walter Reed Army Institute of Medical Research in Washington, D.C. Hamburg returned to Michael Reese Hospital in 1953. In 1958 he joined the National Institute of Mental Health as chief of the Adult Psychiatry Branch, and in 1961 he was called to the chair of psychiatry at Stanford University School of Medicine, where he remained for almost 15 years. He had become familiar with Stanford from a tour at the Center for Advanced Study in Behavioral Sciences in 1957-1958, a cycle which he repeated a decade later. During this period he established himself as an investigator of biobehavioral process, his work ranging from the endocrine effects of stress in the human to the biosocial roots of aggression studied in higher primates in their natural habitat. The breadth of his perspectives is signaled by his research focus in psychoendocrinology at the same time that he was a candidate and then a graduate in the Chicago Psychoanalytic Institute.

At Stanford he established a new department of psychiatry, distinguished for its breadth of research in the biology of mental illness, and was a founding participant in many all-university programs, such as the curriculum in human biology. During the same interval he founded and cochaired a program in science, technology, and society at the Center for Ad-

vanced Study in Behavioral Sciences. Scores of students, fellows, and faculty have testified to the inspirational role Hamburg played in the crystallization and critical orientation of their careers in every aspect of behavioral science.

Hamburg's next career was signaled by his call to the presidency of the Institute of Medicine of the National Academy of Sciences for a 5-year term beginning in 1975. In this position, he had a major role in the mobilization of national analytical and critical talent in many aspects of health policy, ranging from research strategy and investment to international technical assistance and the economics of the health care professions in the United States. His rare combination of deep insight together with an ability to harmonize the views of others—long recognized by his colleagues at Stanford—became well known on the national scene: to some extent in the public eye, but far more within every branch of government and its supporting intellectual structure.

In 1980 Hamburg moved to Harvard, where he founded a new Division of Health Policy Research and Education, a more academically focused extension of the work he initiated at the IOM. Just after he completed that effort, with assurance that the division would endure,



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he was invited to his present position, effective January 1983, as president of the Carnegie Corporation, with headquarters in New York City.

He has been married since 1951 to Beatrix Hamburg, who is a professor of psychiatry and pediatrics at Mount Sinai School of Medicine and was formerly director of studies for the President's Commission on Mental Health. They have a son, Eric, who is a public interest lawyer in California, and a daughter, Margaret, who recently graduated from Harvard Medical School, has done neurochemical research at NIMH, and is now a medical intern at New York Hospital (Cornell).

From 1950 to the mid-1960's Hamburg was a pioneering investigator on the relation of hormonal homeostasis to stress and emotional stability in the human. Studies in this genre require not only skillful laboratory technique and interpersonal rapport, but the anticipation and management of many delicate ethical and medical problems. For the most part, his subjects were people subjected to unavoidable external stress, such as severe illness in a child, and these experiments cannot be conducted unless the investigator is furnishing an ample measure of emotional support during the study. That is, the experiment must be therapeutically beneficial to the subjects themselves. His work integrated studies of naturally occurring stressful experience with laboratory analysis, and did much to clarify the interrelations of brain and endocrine function. In addition, he opened up the field of human coping behavior under stress. In the course of these inquiries, he began to explore the evolutionary origins of human stress responses in studies conducted mainly at a primate field research station at Gombe, Tanzania.

At a later period, Hamburg lent enormous energies to the stimulation of research programs among his colleagues in the psychiatry department at Stanford, to a degree that is scarcely reflected by the appearance of his name in authorship of publications. Those authors include his colleagues Barchas, Dement, Moos, Adams, Yalom, Ochberg, Brodie, Noble, Berger, Levine, and many other central figures in scientific research and leadership in psychiatry today. In this fashion, much of Hamburg's career has been devoted to the building of a scientific base for a psychiatry that links the biological and behavioral sciences.

The work at Gombe also furnished exemplary field laboratory experience for groups of Stanford undergraduates enrolled in the human biology curriculum. This program was designed to fill

the gap between social studies (politics, economics, sociology, history) predicated on human nature unexamined as a biological phenomenon, and the concentration on the chemistry and physiology of the cell that is the mainstream of experimental biology as a discipline. These students also served as willing hands for the unremitting watch tours required in the field studies on wild primates.

On 19 May 1975 this idyll of inquiry was shattered by a raid on the camp by a guerilla group of rebels who were encamped across Lake Tanganyika, in Zaire. After an agony of uncertainty, the word came out that the students were unharmed, but were being held for ransom and other demands. The rebels sought to replenish their weapons for their campaign against the Kinshasa government. Any effort to ransom the students would run afoul of the most delicate political interests. In the abstract, "Never negotiate with terrorists" is a doctrine that is categorically articulated by responsible governments. In the concrete, the lives of those young students were at stake; and while many others vacillated over the moral and political dilemma, Hamburg wasted no time in flying to Gombe to seek life-saving solutions. It must be left to imagination to visualize the subtlety of the interventions needed to negotiate the students' safe release over a period of several months, in the course of which the cross-cutting interests of the governments of Zaire, Tanzania, and the United States were engaged.

Hamburg is not eager to publicize this story, but to leave it out is to miss a life-vectoring motivation of his further career. No one could be more reflective about the ironic mirroring of primate and human behavior in that experience. Perhaps no one could have been so effec-

tive, unless grounded in just that reflection, in threading successfully through the complexities of violently conflicting interests. His immersion in realities of hatred, violence, ignorance, disease, and poverty strengthened his conviction of the need to apply compassionate intelligence to human problems.

After moving to the IOM, Hamburg devoted his energies to policy concerns in health and to the potential of using science and technology to help meet social needs. During his term as president, the organization developed several major thrusts: expanding the scope of the health sciences, strengthening disease prevention, finding ways of meeting the health needs of the underserved, examining relations between health and behavior, and tackling heavy burdens of disease in developing nations.

At Harvard he drew together the faculties of the John F. Kennedy School of Government, the Medical School, and the School of Public Health, providing a broad-based approach to the examination of policy issues in the health sciences and their relations to disease prevention, mental illness, the health of children and youth, and the special needs of the elderly. For his debut as president of the Carnegie Corporation in New York, in early 1983, he lectured on "Man and Nature" at the American Museum of Natural History. In that series he brought together many of his interests in an evolutionary perspective on contemporary problems, especially in health and in international conflict. His theme was the rapid, pervasive, and unprecedented world transformation of modern times, and he dealt with needed institutional responses along two lines: (i) the strengthening of institutional capability for objective analysis of critical issues based on a broad foundation of knowledge and experience and (ii) the reori-

enting of education to make full use of the sciences over their entire range for intellectual satisfaction, occupational productivity, and social problem-solving.

Since moving to Carnegie, he has given much attention to conflict between groups and to the overriding problem of nuclear war. In a recapitulation of his lectures and of his thematic goals for the Carnegie Foundation, he states:

Contemporary power, in a moment of evolutionary time, suddenly dwarfs all of history. This power is, above all, significant in relation to the pervasive tendency toward conflict in the history of our species. We have not had time to develop effective institutions to resolve large-scale conflict. Mass slaughter in modern times has occurred all over the world—not just long ago, but yesterday and today. No continent is exempt, no people too civilized, no nation beyond susceptibility to this social disease. Education in all its forms—from family through schools to mass media—must increasingly come to appreciate and convey the facts of an exceedingly complex, pluralistic, crowded, interdependent, and fascinating world.

Human societies have a pervasive tendency to make distinctions between good and bad people, between heroes and villains, between in-groups and out-groups. The human species is one in which individuals and groups easily learn to blame others for whatever difficulties exist. But in the present nuclear predicament, blaming is at best useless and worst likely counterproductive. The scientific community is the closest approximation our species has so far constructed of a single, interdependent, mutually respectful worldwide family. It does not solve problems by blaming others but rather by undertaking objective analysis. So too the spirit of science must be brought to bear on this crucial problem of nuclear conflict.

It is the great task of contemporary humans to invent solutions to problems that are largely unprecedented in the history of the species. Science can help. But to be truly effective in meeting these novel human predicaments, science too must transcend its traditional boundaries and achieve a level of mutual understanding, innovation, and cooperation among its disciplines rarely achieved in the past.