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Foundations and Science Policy

David A. Hamburg

In recent years, private philanthropy has made important contributions to science by supporting research and by funding initiatives to support the development of careers in research. Yet foundation resources are modest in comparison with the vast resources of federal and state governments. Even so, philanthropic foundations can play an important role by linking policy leaders with the scientific community to consider the factual and analytical basis for decision-making in science policy. In so doing, foundations strengthen the dynamic interplay between our government and the nation, allowing ideas to flow through a great permeable membrane between government and nongovernment bodies and helping to provide for a mutually beneficial flow of information and people between the governmental and nongovernmental sectors.

Many policy leaders have been remarkably open to new information and ideas from credible sources, whether from within or outside of government. They hold the view that democratic leaders should pay attention to and draw on all of the nation's resources for knowledge and skills. By serving a brokerage function, foundations can foster mutually beneficial contact between policy-makers and independent experts in areas of shared concern. This sort of communication is most likely to work under certain conditions, which I will state briefly as exemplified in the Carnegie Corporation's work over the past 15 years.

Foundations can help to fulfill the immense promise of this long-term enterprise.

Foundations can support research and analysis that helps to clarify issues such as how science and technology can contribute to education, economic well-being, and the prevention of war. The aim is to get the facts straight, to foster objective analysis, and to link policy-makers and specialized experts on a basis that is independent, nonpartisan, and open-minded. Above all, the aim is to strengthen the factual underpinnings for decision-making by political leaders.

One example of an area that could benefit from such interplay is science policy on brain, behavior, and health. Only a few decades ago, there was much pessimism about progress in this area, and confusion still remains today despite the progress already made. In the face of formidable intellectual and technical complexity, new paths have been opened in understanding the structure and function of the brain, its relation to the rest of the body, and its relation to the world. Still, there are obstacles, including the complexity of the subject matter, the conceptual rigidities of the mind-body dichotomy, the appropriate ethical limitations of experimental control in human research, and the enduring prejudice against objective inquiry into human behavior.

There is a danger that the current flowering of the life sciences may induce in us a retrospective complacency. It is important to remember that there were many difficulties in attitudes and policies that had to be overcome in order to reach today's pinnacle of understanding. Only a few decades ago, the emerging discipline of biochemistry was viewed with suspicion by chemists as weak chemistry and by biologists as weak biology. Similarly, not so long ago many leaders in medicine were highly skeptical about the future of genetics. Today, both fields are unquestionably dynamic areas of biomedical research with increasingly relevant clinical uses. Conventional wisdom once discouraged the investigation of neuroendocrinology and neurochemistry and scoffed at the idea that the brain could control circulation. The same conventional wisdom discouraged the scientific study of behavior in its own right. When it comes to any central dogma in science policy, modesty becomes us.

A wide spectrum of research is needed to solve long-range, worldwide health problems. Such research requires excellent basic science at every level of biological organization, a dynamic interplay between basic and applied science, a widening of horizons to include new or neglected lines of inquiry, and commitment to the scientific study of human behavior. Foundations can help to fulfill the immense promise of this long-term enterprise by fostering direct and ongoing communication between the scientific and policy communities.

The author is president emeritus of the Carnegie Corporation of New York.