Detlev W. Bronk, Scientist

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THE SELECTION OF DETLEV W. BRONK as president-elect of the American Association for the Advancement of Science is a particularly suitable one. The Association stands for the integration and essential unity of science in an age in which the intense demands for intellectual specialization impose such difficulties for most men that few achieve the nicety, depth, and breadth of understanding to merit the appellation of Scientist without qualification to a single field. It is refreshing evidence of the discernment of the AAAS that it recognizes and acclaims such a man in Detlev Bronk, and that it asks him to give of his talents for its guidance.

Only a few of the more pertinent biographical facts about the president-elect can be mentioned here. He was born on August 13, 1897, in New York City, the son of a distinguished Baptist clergyman, Mitchell Bronk, and Marie (Wulf) Bronk. After his undergraduate education at Swarthmore College, where he majored in electrical engineering, he worked briefly as a power engineer and then, in late 1921, entered the graduate school and the teaching of physics at the University of Pennsylvania. Here he earned the M.S. degree in physics in 1922 and the Ph.D. degree in physics and physiology in 1926. Returning to Swarthmore, he advanced rapidly to the posts of professor of physiology and biophysics (1928–29) and dean of men. At this point of his career there occurred a fortunate circumstance which contributed much to his development, and which deepened the springs of his own inspiration. He was awarded a National Research Council Fellowship and spent a year at Cambridge and London, where he worked with E. D. Adrian and A. V. Hill. The close friendships which he formed with these men have continued through the years. With the preparation he brought to his work at Cambridge and the research he undertook there he committed his personal research activities to the basic problems of neurophysiology. He returned to the University of Pennsylvania to organize and direct the Eldridge Reeves Johnson Foundation for Research in Medical Physics, and to direct the Institute of Neurology.

From this point Bronk's towering ability in administration has been rapidly recognized and called upon by many institutions and agencies. He was coordinator of research in the Air Surgeon's Office of the Army Air Force (1942–46); chief of the Division of Aviation Medicine, Committee on Medical Research of the OSRD (1944–46); member of the U. S. Commission for UNESCO (1946–). He was chairman of the National Research Council (1946–50) and carried that organization to new peaks of accomplishment rather than allowing it to settle into a postwar lassitude. He was elected president of the National Academy of Sciences in 1950 to succeed A. N. Richards, and is currently engaged in bringing that body and its operating arm, the NRC, into more effective internal relationship. He is one of the small number of American members of the Royal Society of London. In 1948 he was named successor to Isaiah Bowman as the sixth president of The Johns Hopkins University. He was named by President Truman in 1950 as a member of the Board of the new National Science Foundation and was made chairman of its Executive Committee by that board.

This partial list of Dr. Bronk's heavy responsibilities in science and education is evidence of the recognition of his extraordinary abilities, but it does not disclose the essential qualities of the man which cause these responsibilities to be brought to him. It can correctly be inferred that his acquaintance and friendships among scientists and educators are extensive, that his knowledge of many fields of science is remarkable, and that he has rare ability and wise tact in handling difficult as well as simple situations. He has also a high degree of awareness of the subtleties of situations and problems; a chemist, geologist, physicist, or biologist in talking with him finds a common understanding of these small but important factors. His ability to keep administrative details in line with principles, his sense at foreseeing necessary compromises and of formulating acceptable ones, and especially his ability to inspire both confidence and vision in his associates—these are some of the qualities of his leadership. Scientists, like other men, do not live by bread alone and give their highest loyalties to those who supply sustenance of the spirit.

Bronk regards himself primarily as a physiologist; he regards physiology as the integration and synthesis of physics, chemistry, and mathematics in the study of life processes. He disclaims being a founder of the field of biophysics, pointing out that Galvani was a biophysicist two hundred years ago, but he has been foremost in establishing biophysics as a recognized discipline. He is still a productive researcher and each year publishes papers on nerve impulse conduction, oxygen metabolism and enzyme systems of nerve, and other aspects of neurophysiology. He still continues two editorial responsibilities—as managing editor of the Journal of Cellular and Comparative Physiology, and as associate editor of the Review of Scientific Instruments. His recreations include mountain climbing, sailing, and attention to his farm in Pennsylvania. When asked how he can accomplish as much work as he does, he has replied, "I don't work at all; I only do the things I like to do!"