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The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objects are to further the work of scientists, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.

Scientists and Their Images

In dealing with the public relations problems confronting scientists today we should pay more attention to our unities and less to partisan conflicts among the sociological groups we serve. For a long time there have existed fairly stable images of the scientists in government, in industry, and in academic institutions. Taking a metaphor from physical optics, one might say that these images have always been more virtual than real. But they are different, and persistent. Would it be fair to say that the academic scientist has had an enlarged, the government scientist a reduced, and the scientist in industry a perverted image? Among the respective groups this situation has led to mutual disparagement of these images rather than of their realities. Thus, the industrial scientist resents the assumption of superiority and virtue which he finds in his image of the academic scientist, and the latter condemns the worldly ambitions he sees in his image of the industrial scientist, while the two unite in looking down upon their image of the government scientist (unless, of course, the latter is that curious new creature the scientist-administrator). Meanwhile, the image of the scientist or engineer working in classified territory remains outside the visible spectrum. The scientist at a research center, however, leads a charmed, if transitory, life. He is too new for a clear image to have formed, but, thus far, the objectionable characteristics of the other images seem to be lacking.

The real images of these three or four varieties of scientists have been changing rapidly and coming to resemble one another more closely. It is high time we realized this. For, to offset this integrating process, new images of science and scientists are emerging. This change has been fostered by the interests of the various sectoral groups and arises from their competing demands for funds and for personnel. To the public, science emerges from these images as the savior of the world, and scientists as its disciples. This propaganda should surprise no one. What more powerful justification could there be for securing the wherewithal from reluctant donors? Indeed, a plausible case for this view can be made both from the record and from the promise of things to come. However, the fallacy is obvious: for social progress, science is necessary but not sufficient; many minds and abilities besides those of scientists are required. Moreover, for the material progress which this image elicits, science has limitations: its progress is slow, erratic, unpredictable, and at any given time science is highly productive only in a limited number of cases. To cultivate such a virtual image is unrealistic and leads to extravagance and frustration. Furthermore, under this image we scientists will become divided—among ourselves and among the competing groups we serve. In addition, we shall run the grave risk of losing the humility and integrity which have always dignified our profession.

Among the assets of science of far more profound significance in the long run are the thrill of discovery, the stimulus to imagination, the breadth of outlook, and the deepening of understanding of our world and our fellow men. These qualities are inherent in the real image of science. They carry with them the assurance of success in the solution of our technological problems, but as a by-product rather than as a single-minded aim. In this real image, science is one with all creative endeavor and will contribute in important and unique fashion to a higher appreciation of purpose, to a greater realization of hopes, and to the fuller preparation of coming generations for their dynamic future.—ALAN T. WATERMAN