

Not to leave the impression that economists alone face inner obstacles when they try to do scientific work, let me recall a few derangements from which most of us suffer in some degree. We have our personal likes and dislikes that make it hard for us to assess impartially the scientific contributions of our fellow workers. Often these emotional aberrations take the still more irrational form of living or disliking large groups of people whom we don't know but about whom we imagine things. Who among us maintains a strictly scientific attitude toward what is called the race issue, either in the form that is acute in Germany or in the form that is acute in the United States? To be more offensively personal, is there any one so free from vanity that he can be strictly scientific about critical appraisals of his own work? And on a higher level, are not most of us conscious of an unreasoned predilection for certain types of scientific inquiry balanced by an equally unreasoned tendency to depreciate the value of other types?

I should hesitate to talk in this vein to any company not composed of scientific investigators. Just because other groups would probably have more biases per gram of gray matter than can be found in this room at present, it would be futile to dwell upon their intellectual limitations. Little but annoyance could re-

sult. But we who profess to follow the scientific ideal can face even our own deficiencies and lapses from grace in a scientific spirit. And the firmer our scientific temperaments, the readier we are to overcome so far as human nature allows the inner obstacles to scientific work.

We have, indeed, a high calling, and much depends upon how we acquit ourselves. Progress in human well-being is conditioned by progress in discovery in both the natural and the social sciences. Scientific discoveries are made by gifted individuals; but these individuals have to be conditioned for their work, and this conditioning is a social process. Even more patently, the application of scientific discoveries to human uses, good or bad, is work in which thousands share. Many citizens of the future have their most vivifying contacts with science through us. We do not expect to make many of them scientific lights, but we do expect to give most of them some impression not only of what science has accomplished but also of the spirit in which scientific men work, thus to influence their future attitudes toward science, and to promote the social processes that favor scientific discoveries and their applications. The most effective way to exercise this influence upon others is to cultivate the scientific spirit in ourselves.

SCIENTIFIC EVENTS

THE NEW GEOLOGICAL GLOBE AT THE SOUTH KENSINGTON GEOLOGICAL MUSEUM

It is reported in the London *Times* that a geological globe, 5 feet 11 inches in diameter and electrically rotated at the rate of one revolution in $2\frac{1}{2}$ minutes, was formally set in operation at the Geological Museum, South Kensington, on October 10, by Sir Frank Smith, secretary of the Department of Scientific and Industrial Research. This globe, which is believed to be the largest yet prepared to show both surface relief and the distribution of geological formations, was modelled by C. d'O. Pilkington Jackson and was colored by the museum staff, the painting being carried out by Mr. C. Keefe under the direction of Mr. A. J. Butler.

The scale adopted is approximately 1 in 7,000,000, or one inch to 112 miles. Mountain heights are exaggerated 20 times, and one of the most striking impressions which the new globe creates, according to the *Times*, is that of the comparative insignificance of even the loftiest mountains, for in spite of this exaggeration the summit of Everest projects scarcely more than an inch above sea-level. The globe rotates on its polar axis nearly 600 times as fast as does the earth, but the actual speed of a point on the surface of the earth

is about 12,000 times that of the corresponding point on the model.

The various rocks of the earth's surface are shown by a graded series of colors, ranging from deep purple for the oldest rocks, formed perhaps 1,000,000,000 years ago, through shades of blue, green and yellow to a flesh-pink for the large areas covered by deposits laid down during and since the Ice Age. The igneous rocks are colored scarlet and orange. Ice-caps, rivers and lakes are also marked.

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