

Letters

Gerontocracy and Youth

In a letter (18 Nov., p. 847) de Garilhe protests the distribution of the Fermi award in 1966 to three nuclear scientists with an "average age" of 79. He feels that this is a pity when "many valuable young scientists await in vain any recognition of their efforts."

Since de Garilhe did not define the term "young," I thought I might be permitted to express the opinion of a young and unrecognized scientist who disagrees with him. To wit, I have still over 25 years before reaching the "average age" and I have not received any monetary award. Moreover, like de Garilhe, I have been an outspoken opponent of what he calls the European gerontocracy, the system of autocratic rule of scientific institutions and departments by the often elderly chairmen. However, I do not believe that the distribution of the Fermi award in 1966, or the recent Nobel awards, is a symbol of such a system. On the contrary, I suggest that no monetary award which carries great prestige should be given to a scientist before he reaches the age of about 65, unless specific circumstances warrant it.

I could document the rather negative influence a large award has had on some young scientists who virtually ceased their scientific efforts and were drawn into social and administrative activities at an age of great potential scientific productivity. I realize that this statement is not backed up by "controls," but it is difficult to deny the effects of the social pressures brought upon the laureates to lecture, wine, and dine all over the world.

There is another point. The recipient of such an award should be a symbol of our scientific community. Would it not be more appropriate to wait with the great award until the work as well as the investigator has stood the test of time? How many laureates could confess to the fact that the citation of

the award dealt with an interpretation of their work which later on had to be abandoned? How often is a single and perhaps accidental discovery honored without consideration of the intellectual and spiritual contribution of the man who made the discovery? What type of scientist do we want to represent our scientific communities?

De Garilhe did not question the merit of the three elderly scientists. Why should they or others in their age group be denied a great award which had not reached them before their average age of 79? Perhaps we can give better recognition to the younger and gifted scientists by giving them adequate facilities and freedom of inquiry, greater responsibilities and awards that do not catch the public eye.

Finally, a few words about gerontocracy, an area where I seem to agree with de Garilhe. But I doubt that awarding prizes to younger scientists would remedy the situation. To paraphrase Nestroy, a Viennese satirist: There is only one thing worse than an old autocrat and that is a young autocrat who is an old autocrat. Power in the hands of a young tyrant can be more evil than in the hands of an old one and it seems endless. Human nature, as it is, cannot be cured but perhaps can be prevented. Power should be distributed, counterbalanced, and rotated. With all its failings in its superstructure, democracy can rely on this basic feature of its foundation. The scientific communities in the United States have become increasingly aware of the importance of rotating the departmental chairmen, the institute directors, and the powerful committee members of granting agencies. It is rewarding to see that this system is beginning to be adopted even among some institutions of the "old European civilization."

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K. S. Yang, in a note to his useful translation of "Ancient oriental records of novae and supernovae" (4 Nov., p. 597) remarked that Table 1 in the Chinese original included much more relevant information which was omitted because of difficulties with space and with readable translation of technicalities, and he recommended interested readers to refer to the original. However, he omitted to include a reference to the original publication. This appeared (in revised form) in *Acta Astronomica Sinica* **13**, 1-21 (1965). Since that article might not be readily accessible to American readers, it is worth noting that a complete translation was published in January 1966 by the National Aeronautics and Space Administration as NASA TT F-388 (1). This NASA version has some oddities in its translation (for example, Ipaku for Hipparchus, sec for parsec, and others), but its Table 1 of supernovae and novae does translate the extensive quotations from original sources that Yang had to omit from his version.

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Reference

1. Available from the Clearinghouse for Federal Scientific and Technical Information, 5285 Port Royal Road, Springfield, Virginia 22151, \$3.

Nuclear Reactors: Hazards and Health

Novick (Letters, 9 Sept.) reports the often-heard comment that we are exchanging a known and preventable source of pollution from fossil fuels for the comparatively unknown problem of radioactive contaminants, and he cites a 9-year-old analysis of hypothetical nuclear reactor accidents. If he had examined the analysis of reactor accidents as currently set forth in applications for permission to construct these plants, he would have learned that, although undesirable, a number of "major reactor accidents" could occur without causing significant physiological damage, genetic or otherwise, to the population in the neighborhood.

The author implies that, as reactors are multiplied in size, the danger of accidents will multiply and seriously increase air and water contamination. He