

Letters to the Editor

Letters express the views of the authors only. The Editorial Advisory Panel reserves the right to select contributions which they deem to be of sufficient general importance.

Sir,

The success of the EPS will depend essentially on whether its founders succeed in achieving more than a simple enlargement of already existing national societies. National narrow-mindedness and provincialism in research may be overcome only if the plans of the Society are sufficiently broad and attractive.

Although the EPS is well advised not to have quasi-political activities, it would be wrong if the Society were to limit its interests to purely problems of physics and to the services related to them (such as the planning of European conferences, and the setting up of a European scheme of journals). It would be of comparable importance to acquaint physicists with the various forms of administration, organization and financing of science and research that have been adopted in the European countries. Questions concerning the training of young physicists are also of great interest.

Thus the idea arises of a "Professional Group of the EPS on Science Management".

Scientific contacts in Germany and abroad show that there is an astonishing lack of knowledge of the economic and organisational prerequisites of research projects. More astonishing still is the absence of interest in these matters. From sheer concentration on fundamental research, many physicists have forgotten to think about the very foundations of any research. And yet, they raise a unanimous lament about the poor understanding of their needs and wishes by science-administrators, ministries and so on, and about the inadequate representation of their interests.

Extension of the activities of the EPS in the direction of Science Management could be a great help here. It is however insufficient if only some high science-officials indulge in Comparative Science Management; the majority of physicists should be kept well-informed of the social background of physics in the various European countries. The EPS, through its publications, could provide for the exchange of relevant information. The German Federal Republic, for instance, could contribute its experience with the Max-Planck-Gesellschaft (MPG) as a successful model

of self-government of science. Physicists from other countries might also like to know something about the functioning of the Deutsche Forschungsgemeinschaft (DFG). Conversely, we in the Federal Republic would like to be informed of the French "Agence Nationale de la Valorisation de la Recherche" (ANVAR).

D. Schumacher (Markdorf)

(Translated from German)

Sir,

It seems to me that it would be worth-while trying to place the very fashionable activities of Science Management and Science Politics into their natural framework. To this end, it is illuminating to pay attention to two typical attitudes of physicists towards physics, which at first sight seem not at all related, but may have a common root, and to try to bring this root out as neatly as possible.

Professor Weisskopf, in his conclusion to the "Giornate galileane", said "So far we have talked physics, now it is about physics. And that is a step backward. To speak about physics is really not what physicists should do". This reveals the **modesty of the** (outstanding) **physicist**, who wants to stick to his subject and to evade the danger of losing himself in the jungle of general considerations without consequences. Physicists have the tendency to believe that the product of one's productivity in science and one's proficiency in general considerations is a constant.

In contrast there is the attitude that appears in Professor Ganzhorn's formulation: "...one finds that physicists are far from occupying management positions to the extent which might be expected in view of the universality of their training". Here it is the **immodesty of physics** that shows itself. I do not object to that immodesty, but I do contest the universality of the training of a physicist or of a scientist (clearly I do not here refer merely to the lack of training in managerial techniques). What is common to the two quoted references is precisely the belief that physics or science is something complete, something universal. To avoid confusion, I must make it quite clear that by science I mean natural science.

In my opinion natural science has

no such universality. To grasp this, it suffices to follow the development and meaning of the concept of nature in the course of man's evolution. From the point of view of human experience, which after all is at the basis of everything we might know or think, nature is an abstraction. This concept reflects one part of human experience; that part which can be repeated, reproduced, ..., and therefore that part which has been considered as existing outside of man, even though the observer or the experimenter changes. I do not want to go deeper now into these philosophical questions. Neither do I want to give the impression that I am crying for the lost paradise of the unity of man with nature. Man is the product of that lost unity. But we must be aware of the fact that a loss there has been. And that awareness may take the form of speaking about science. If we ourselves do not speak about physics, others will do so; others are in fact doing it, and perhaps less competently.

A more consequent form of that awareness is the study of the relations between science and society. I do not know what name one should give to such a study and the resulting knowledge; however, Science Management and Science Politics are but special, operational aspects of it. Left alone, they may degenerate into pure manipulation, the means masking the ends, and even generating new ones.

I submit that one of the important tasks of the EPS should be to stimulate the study of the relations between physics and society; this could be done most appropriately within a specialized division of the Society. The purpose of this division would of course be not only to serve as a forum of general philosophical discussion, but also to initiate and co-ordinate the quantitative and qualitative study of the education and professional life of physicists. In some European countries, such studies have already been undertaken, but one should strive to arrive at a unified (though not necessarily simple) picture for Europe. This poses the interesting problem of finding common yardsticks for the differing conditions in European countries. In this frame, Science Management and Science Politics find their adequate place. This division should also provide the ground for fruitful meetings of physicists with economists, sociologists, administrators, and perhaps politicians too.

E. Ascher (Geneva)