Letters

Particle Discoveries

Edward M. Dickson (Letters, 14 Feb., p. 488) expresses several concerns about the circumstances surrounding the discovery of the psi, or J, particle at the Stanford Linear Accelerator Center (SLAC) and Brookhaven. I submit that these concerns are misplaced.

Dickson appears to deplore Goldhaber's writing an article with only three data points in from the experiment. It seems unfair to criticize a scientist for actions taken along the path to publication, rather than for his published work. The SLAC publication (*1*) is clear, accurate, and significant. Goldhaber's action on that exciting Sunday was also quite reasonable. The psi signal was exceedingly strong. It was important to start drawing together the experimenters' thoughts immediately. Within hours, they were besieged with requests for information. The psi signal could be compared to a supernova bursting in the sky in the course of a single night. An astronomer seeing the flash would surely begin shortly to set down his observations.

Dickson suggests that particle physics is an "absurd competition." As with any discipline at the forefront, there is certainly a healthy sense of competition. However, the simultaneous discoveries of the psi particle were not made in competing experiments. The central lines of interest for the two groups were rather different and the technique of production and detection totally orthogonal. No doubt, the two groups were reading the same journals and listening to more or less the same group of theorists. True, within a day or so of the SLAC discovery, experimenters at two other storage ring facilities were looking at the psi particle. In both cases, they moved to research areas where they thought their work would not completely overlap the SPEAR result but would shed additional significant light on the tantalizing development. In the intervening months, there has been little duplication of effort. The lode is far too rich.

In tracing back over the events of last year, including the discovery of neutral currents, the same pattern holds. At least three laboratories scattered around the world, CERN, Fermilab, and Argonne, have made significant contributions, each with a distinctly different flavor.

Was there utility in spreading the news of the psi particle so fast? Yes. One month after the discovery, Fermilab held a special symposium to discuss new experiments relating to the discovery. More than 20 proposals were received. About half of the experiments at Fermilab were directly affected by the discovery.

News of the discovery did make its way into the general news media rapidly, and *Physical Review Letters* (*2*) did question the wide dissemination of the information prior to publication. In reviewing the decision to publish, the editors noted, "When, however, upon consulting our advisors, we became aware of the truly unusual extent to which the entire high energy physics community was involved, we concurred that the news justified early public release."

To me this does not appear to be an absurd competition but an extremely flexible and viable approach to a scientific discipline rich with intellectual challenges.

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References

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J. A. Krumhansl and G. L. Trigg, *ibid.*, p. 1363.

Science and the Law

I would like to call the attention of all members of the AAAS who are lawyers to the fact that the American Bar Association (ABA) has recently established a new section on science and technology.

Any lawyers who are members of the AAAS presumably are interested in the relation between science and the law. The Science and Technology Section of the ABA is not only open to them but solicits their interest and membership. The address of the American Bar Association is 1155 East 60 Street, Chicago, Illinois 60637.

The AAAS and ABA have sought to stimulate and encourage thinking about the relation between law and science by establishing a joint conference group composed of seven members of each organization. However, the activities of such a group are necessarily limited both in scope and in the number of participants. Consequently, one of the best ways to encourage the indispensable relation between the disciplines is for those who are interested and eligible to become members of and active in both organizations.

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Feeding the World's Poor

In his editorial "The ghost at the feast" (15 Nov. 1974, p. 589), Roger Revelle faults certain scientists and publicists (whose views he calls an "obscene doctrine") for advocating a "lifeboat ethic"—denying food aid to those nations who do not compel human fertility control—but failing to say how their proposals are to be implemented. Most writings on the world food crisis share this failing. Certainly Revelle's editorial does. I don't know "how" either, but some relevant thoughts need to be taken into account.

Before a significant number of Bengalis can be fed on Kansas grain, at least two things must happen. First, the eating habits of America will have to be changed so that we can afford to export the grain; second, all those people from Topeka to Dacca who will own, manage, and handle that grain will have to fit their thousands of tasks into one massive and coherent grain-moving enterprise—without a profit motive. That any of this will happen spontaneously is about as likely as that all the molecules in an engine cylinder will spontaneously head for the piston; nor will the most learned explanation that "thus-and-such is the best way" have much effect. There is, in Revelle's phrase, "the necessity to change the selfish and shortsighted behavior of many people."

Selfish, shortsighted behavior comes easy; effective concern for humanity in the large, and commitment to long-range goals, do not. To ensure the co-