tion and understanding gap between the government-public and science and technology. Any "cultural" divisions, two or two hundred, among intellectuals may well deserve to be called toe numbness. Lafore has omitted, however, a fundamental difference between the cultures which he otherwise describes so well. Their use of language is basically different. It is characteristic of the scientist and engineer to use language in an operational, objective, and single-valued fashion. The literary artist, on the other hand, uses language in a subjective, many-valued way. This is Aldous Huxley's main theme in Literature and Science. It is a feature of the two cultures which will not either disappear or proliferate with two hundred specialties. Whether it is significant beyond the social level within the intellectual community cannot be said at this time. But if it inhibits the incorporation of human factors into our scientific and technological future, it may well be very important.

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Department Heads and Other Problems

The caricature of academia Pollard presents in "How to remain in the laboratory though head of a department" (4 Sept., p. 1018) is very funny -unless you are very close to it. Examples of inappropriate mechanisms for dealing with everyday problems are endless where the cultural lag is great. The academic setting is a fertile source of such anecdotes. But rather than poking fun at the higher-learning environment or finding ways to live with it, I suggest that more effort be devoted to ridding ourselves of a cultural hangover and finding more effective means of doing whatever needs to be done. Three needs come to mind almost immediately:

- 1) An academic structure that would better accommodate people who arrive at their specialized knowledge through prolonged education rather than by virtue of indentured service. Specialized education is a great leveler. The hierarchical pyramid needs to be flattened, or better, replaced.
- 2) A more appropriate system of rewards for all the essential participants

in the academic setting, whether teachers, researchers, administrators, or other. Certainly, researchers should not be "promoted" out of their fields of competence into an area in which they are grossly incompetent because the academic culture dictates that the highest rewards must go to the department head or administrator.

3) An educational scheme whereby neophytes can progress in orderly fashion through the process of learning, both formal and informal, and with increasing responsibility and rewards. This would remove many of the unnecessary hazards of education, which is now characterized by wide gaps, great leaps forward, financial insecurity, and wastage of human effort.

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Pollard makes explicit the anxieties and frustrations of a scientist required to work in administration. His solutions to the problems discussed are the most practical I have ever seen in print. I think the article merits distribution to all who are responsible for the allocation of funds to support scientific research.

In addition, may I suggest that AAAS set aside several pages each month for the next several months for dialogue between the laboratory scientists and fund administrators? In particular, it might be fruitful to invite comments from scientists who are on the staffs of granting agencies.

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Pollard is unduly hard on the class of young research workers he terms "post-docs." Within my experience as a graduate student the "post-doc" is not a "privileged individual" or "an object of great admiration" among the graduate students. In fact, lacking the status of instructor, he is likely to be ignored by both students and faculty. Because he commonly has a family and is likely to be drawing a modest salary, it must be assumed that his motivation in becoming a "post-doc" is primarily his interest in research—precisely the same motivation that keeps Pollard in the lab! It is no wonder, then, that having been awarded an opportunity to do research for 1 or 2 years, the "post-doc" is not eager to take over the menial teaching chores of members

on the staff so that they can have more time in the lab.

Finally, with regard to hiring new faculty members I think it can be argued that it is the post-doc and not the green Ph.D. who is more desirable, if not to the head of the department at least to the other faculty members and the students. Certainly the postdoc will be more widely read in and more thoroughly acquainted with his own and neighboring fields of research. He is likely to be more mature scientifically because of his additional research experience. Finally, if he is going to be a good teacher, that quality can hardly be impaired in the 2 years between graduate school and teaching; if he is not, it would still be difficult for the department head to evaluate his lackof teaching ability objectively from 1 or 2 years served as instructor.

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News and Comment in Our Journal

I do not agree with Cooke (9 Oct., p. 171) that the section News and Comment is out of place. My interest in reading *Science* and the benefits I have derived from so doing have increased as the scope and content of this section have grown. I know of no other source of comment and analysis of the sort provided so well by Greenberg, Walsh, and Langer. I hope this section will be continued and strengthened.

BRYANT MATHER

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. . . A sample vote among my colleagues gives unanimous disagreement with letter writer Cooke.

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. . . Since Science is "a forum for the presentation and discussion of important issues related to the advancement of science," in my opinion the discussion of political candidates' views is relevant and proper. I think that we can expect our editors to be objective, and, if there is disagreement about whether they are, we should offer relevant, objective criticism.

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