Letters

More Views on Ph.D. Language Requirements

I agree with Ross and Shilling (Letters, 30 Sept.) that Ph.D. language requirements should be brought up-to-date, but rather than require a candidate to have a cursory understanding of two foreign languages, I would prefer to see him learn only a single one well enough so that he could use it. It is difficult enough to find time to read all that is available in the mother tongue, let alone translate a foreign article whose language is only partially understood. There are now many abstracting and translating organizations that give us the English version of foreign articles a few months after publication. Why must we persist in these antiquated language requirements for the Ph.D. degree when they waste so much of our graduate training time and are of so little use in our future scientific endeavors?

As a substitute for the second language we should include more training in the true language of all sciences—mathematics. In the biological sciences the most usable form of mathematics for a future research scientist is in the form of statistics and computer analyses. While most graduate schools offer courses in statistics, very few offer one in practical computer analyses.

I wonder how many graduate schools in this country have already changed the Ph.D. language requirements to meet the scientific challenge of the future. Such information would greatly help in bringing about a similar modernization at other more conservative universities.

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. . . Working knowledge of more than one language is increasingly desirable for Ph.D.'s in view of the expanding number of foreign publications and meetings abroad. But should graduate schools, oriented toward advanced training in specialized areas, be required to provide elementary language instruction and shepherd doctoral candidates through reading examinations? Is it appropriate that students at the graduate level divert their energies from research training to basic drill in French and German? Should the predoctoral course of study be prolonged by language requirements when the demand for places in graduate school is increasing at the present rate? I believe the answer to each of these questions is "No." Knowledge of one or two foreign languages is basic to the general education of a student who will eventually hold a doctoral degree, and this knowledge should be acquired in secondary school and college. James Conant suggested some years ago that levels of college and secondary school instruction could be raised most efficiently by pulling them up from the top through higher graduate school admission standards. As an example of this approach, a prominent medical school has recently decided to include physical chemistry among its required premedical sciences. This places a burden on the next one or two classes of undergraduate applicants to this school, who may need an extra remedial course before beginning their graduate study. Nevertheless, the decision will probably be adopted by other schools, and should lead eventually to the desired results: better training in physical chemistry at the undergraduate level, and less need to spend time on the elements of this subject in medical school courses.

The language problem might be similarly approached if a few leading universities would simultaneously set some agreed upon level of linguistic proficiency as a requirement for admission to graduate school. Such a move would also produce a temporarily awkward situation for undergraduates applying to these schools, and the adjustment to it might take 3 or 4 years. But the end result would be to encourage the teaching of language in school and college, where it belongs, and to free the graduate student for undivided attention to advanced training and research in his chosen field.

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Wren (Letters, 25 Nov.) "having recently qualified in both French and German for the Ph.D. in business," finds it "refreshing" that Ross and Shilling discuss rationally these "high hurdles" for doctoral candidates. Despite his contentions that they "were essentially useless" and that "an equal amount of time devoted to quantitative methods or economics would have had great value," he argues that these "very serious hurdles" have a major function because "it is increasingly apparent" that enough classroom attendance adds up to undergraduate and graduate degrees in many programs.

The criteria for Ph.D. requirements should be measured not by their height, but by their relevance and potential contribution to teaching and research. If any requirement does not measure up, faculties should have the courage to drop it despite long-standing traditions.

There is no place for irrelevancies in doctoral programs which still average 10 years from the baccalaureate to completion (*1*). Moreover, hoop jumping may have two devastating consequences if the candidate believes it is irrelevant. Given enough intellectual integrity and independence, he may quit the program altogether. Worse yet, given enough cynicism and conformity, he may capitulate, bear the psychological burden, and pass it on to his own students.

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Reference

1. L. R. Harmon, *Background and Experience Patterns of the Doctorates of 1962* (Office of Scientific Personnel, Washington, D.C., 1965).

Antiexperimentalism

Velay (Letters, 21 Oct.) expressed an opinion that experiments depriving rats of D-state but not slow-wave sleep for 96 hours (Bowers, Hartmann, and Freedman, 16 Sept., p. 1416) were objectionably cruel, and he hoped no