failed to prevent subsequent "contamination" of the salt solution.

The cells of a bird collected at different times did not react uniformly to the same solution. Limited experiments also indicate that there may be individual differences among birds in susceptibility to lysis. The nature of the specific contaminant has not been determined.

FRED T. SHULTZ

*Division of Poultry Husbandry*
*University of California, Berkeley*

## The Language of Science

I CANNOT help wondering whether the current disputants about the language problem in science have not rather lost their sense of historical perspective. This problem has only existed for about 300 years, which is a minute slice of history. Prior to that time the acquisition of four languages—Latin, Greek, Hebrew, and Arabic—placed the literature of the then known world at the disposal of the scholar. Probably 90 per cent of all scholars used only Latin.

If Latin were reintroduced as a universal language in science it would solve many of the problems raised by your correspondents: (1) There already exists a considerable volume of literature in Latin. One of the objections to the introduction of a synthetic tongue is the innumerable arguments that would immediately arise as to style. (2) The language is not spoken by any living group today, so that no national feelings would be hurt by its adoption.

The suggestion that Latin is inadequate to express the needs of science could only be made by one totally unacquainted with philology. Every language is continuously adapting itself to the needs of the civilization in which it is used, and Latin is just as flexible as any other tongue. I agree with Professor Faegri that every contemporary worker would continue to have to learn English, French, and German—in my field Spanish and Italian are almost as important—but I do not see why we should insist on passing on to our descendants the curse of Babel which fell on our ancestors. Five hundred years from now the scientific literature of part of the sixteenth and almost all of the seventeenth, eighteenth, and nineteenth centuries would be regarded by scientific historians as a specialized field to be avoided by those not linguistically inclined. Anything of truly permanent value would, of course, by that time have been translated into Latin.

PETER GRAY

*Department of Biological Sciences*
*The University of Pittsburgh*

THE discussion about language problems in science is of more than purely academic importance. My mother language is a "small" one, and I had of course to learn English, French, and German well enough to speak and write them. I certainly would not like to have to learn a fifth language, Esperanto (Lincicome, D. R. SCIENCE, **113**, 607 [1951]), which, by the way, would not give me the great pleasure that English, French, and German gave me, of enjoying a firsthand knowledge of foreign literature. I therefore agree entirely with Knut Faegri's ideas (SCIENCE, **114**, 399 [1951]).

I think, however, that something should be done. I know by personal experience how difficult it is to have every Italian graduate student master English and German well enough to get acquainted with genetic literature, and how American graduate students would rather not read German papers on the subject. In the past, science had an international language: Latin. Certainly I am not going to advocate the revival of this language.

What I think should be done is this: (1) let Unesco organize, through national committees and learned societies of each country, a poll to find out what modern language should be chosen as the "language of science;" (2) let the nations belonging to Unesco agree to have the teaching of this language compulsory at higher educational levels; (3) let every learned society in the world agree that every original contribution, experimental or otherwise, is going to be preferred for acceptance in its proceedings if written in the "language of science;" (4) let the editors of scientific journals do the same.

Such provisions would not be likely to produce immediate results; but after a decade or so every scientist would know that his discoveries would be bound to be ignored unless written in the accepted language; a young scientist would have to learn no foreign language if he is lucky enough to have the official language as his mother tongue, or just one if he lives in other countries. Knowledge of other languages would still be necessary for the old scientific literature, but the importance of this would decrease with time, and translations of the important papers into the "language" could be prepared.

This would not necessarily mean the death of every national scientific literature. Textbooks and general articles would still be written in the local language. Probably a smaller total output of scientific papers would be the end result, and this would certainly be welcomed. The original contributions, however, would become easily available to the whole world.

As to the language to be chosen, I for one am all in favor of English: It is already being used by the largest number of living scientists; it is well suited to the compactness of scientific language; there are already scientific journals being published in English by non-English speaking countries, such as Sweden. Last but not least, I know English already and I cannot be accused of linguistic nationalism by making such a proposition.

A. A. BUZZATI-TRAVERSO*

*Universitá di Pavia, Italy*

* Visiting professor, Department of Zoology, University of California, Berkeley.