

place the accent on the first syllable" of research. From such "datta" or "dayta" as I have collected on this question I am disposed to think that it is a drawn game at present. Last year, while I was sitting in at a conference of investigators from all parts of the United States held in the National Research Council, I kept tally of the rival pronunciations. Unfortunately I have mislaid my notes or laid them away carefully—which amounts to the same thing in my filing system—so I can not give the figures, but I remember positively that at the end of the afternoon the score stood exactly equal. In two cases I had to record a one half vote in each column because one man alternated in pronunciation and one woman always adopted the form used by the preceding speaker.

In case of transplantation to an exotic habitat about nine months is required for complete acclimatization to the alien accent. One June when a western professor came into my office to say good-bye at the expiration of his year on the National Research Council I expressed my regret that I had not seen as much of him as I had hoped to when he came in the fall but that the time of his stay seemed so short. "Yes," he responded, "The term of service on the Council is too short. No sooner does a man learn to say research' instead of re'-search than he has to leave and another man takes his place to start at the same point."

Why not settle the question by dropping the first syllable? Does "research" have any advantages over "search," except in being longer and harder to pronounce?

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SCIENCE SERVICE,
WASHINGTON, D. C.

IN the issue of SCIENCE for March 23, 1928 (p. 319), Dr. Nicholas Kopeloff points out how annoying is the mispronunciation of the word, "research"; the common garden variety of usage places the accent on the first syllable, while the proper form is with the accent on the last syllable. Is this not as it should be? Are not about 90 per cent. of so-called original investigations "re'-search," whereas 10 per cent. may properly be dignified as "re-search"?

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REPLYING to the article by Dr. E. C. L. Miller on page 319 of SCIENCE for March 23, I would say that he has confounded the transitive verb "to believe" with the intransitive verb. The former is defined in the Century Dictionary as "to credit upon the ground of authority, testimony, argument or any other ground than complete demonstration." There is no reason

why users of the English language should confine themselves to only one meaning or only one use of a given word, but as this troubles him, I would suggest that for believe, he should substitute "think," or "I am of the opinion," or "accept as true," or "to credibly state."

Answering Dr. Nicholas Kopeloff's article on "The Pronunciation of Research," I would say that even if the majority of people put the accent on the first syllable rather than on the second syllable of "research," it does not make it right, and that educated men, and especially scientists, should strive to overcome the mistakes and "foibles" of other people. The argument for re'-search is that the search is *again* made! There is some excuse for this pronunciation when this meaning is intended.

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QUOTATIONS

POPULAR SCIENCE

THE translation of scientific news—nowadays so enormous in its bulk—into suitable language, and its condensation to comparatively minute dimensions, are undertaken in a systematic manner in the United States of America by an organization known as Science Service, Inc., directed by Dr. E. E. Slosson, and functioning under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science. This organization publishes daily science news bulletins, and a weekly summary of current science entitled the *Science News-Letter*, in which current events, scientific discoveries, and résumés of progress, together with broadly-drawn reports of the proceedings of scientific conventions, are recorded in simple terms. In addition, there is compiled a weekly digest, intended to present the cream of the week's scientific news, which is regularly used by more than twenty broadcasting stations in the United States.

Fortunately, in Great Britain there is little fear that discoveries might be announced to the listening public in a manner savoring of sensationalism, or that accounts of scientific affairs might be so rendered as to appear ludicrous to the initiated, for the policy in this respect of the British Broadcasting Corporation and of its predecessor company has been exemplary. We are, however, familiar with the result of excursions by otherwise competent journalists into spheres with which they are not familiar; indeed, the distaste for publicity which is usually ascribed to undue modesty might, if the truth were known, quite possibly often be traced simply to a fear of misrepresentation. The American press is now able, however,

to rely on telegraphic news "stories," prepared by the managing editor of Science Service, Mr. Watson Davis, and the members of his specialist staff, so that their reports of the proceedings of conferences and conventions shall be well-balanced and accurate, without losing their attractiveness as items of news.

In Great Britain there is, of course, fairly adequate publication and survey of the results of research, such publication being intended for the use of the scientific population itself, and being normally directed by members of that fraternity, but we seem to lack a widespread sense of the importance of an appeal to the non-specialist members of the community as part of their ordinary daily culture, an appeal which must, to be worth while, be sponsored by the most notable members of the professions, and to be effective by the more journalistically-minded among them. There is, after all, no valid reason why the dissemination of knowledge beyond the confines of schools and colleges, provided it is carried out with scrupulous honesty, dignity and restraint, should not be acknowledged to be as valuable a social service as the collection and arrangement of the knowledge itself. True, this view has been given practical effect in certain influential sections of the British lay press by acknowledged authorities in a number of the sciences, but apart from one or two publications of admitted standing, there is little organized continuous effort in this direction. An attempt was made a couple of years ago to secure the interest of scientific societies and institutions in Great Britain in the establishment of a science publicity service, but the response was so disappointing that the scheme was abandoned.

Dr. E. E. Slosson, in a recent address before the American Association for Adult Education, made the somewhat surprising statement that archeology and astronomy—essentially remote and unpractical—head the list of the sciences in order of popular interest, and that the essentially practical sciences are low in the list. He ascribes this, probably correctly, to the same cause as that operating in the selection of, say, "futuristic art" as a subject of study in a women's club rather than "domestic economy." He declares that scientific workers have been too humble and too modest in claiming credit for what they have done and what they can do in the control of human affairs, but have allowed statesmen, writers and financiers to take all the praise for the advance in civilization and the amelioration of living conditions that were really due to scientific research. If we look at the matter from the point of view of the wealth of nations, as Dr. G. E. Hale, the honorary chairman of the National Research Council, has recently done in *Harper's Magazine*, it is clear enough that the business of men of science is to help to guide mankind as

well as to serve it. That is to say, if a scientific orientation can more universally be associated with moral and religious convictions in the equipment of the human mind, there will be less danger of the wicked and unscrupulous misuse of scientific power, less point in arguing the prohibition of poison gas, and an extension of that wider fraternal patriotism which distinguishes scientific international relations.—*Nature*.

SCIENTIFIC BOOKS

The Biology of Insects. BY GEORGE H. CARPENTER, D.Sc. 473 pp., 16 pls., 88 text figs. London: Sidgwick & Jackson, Ltd., 1928, 16 s.

WHEN Professor J. Arthur Thomson, in the series of biological handbooks which he is editing, came to the insects, he chose a very good man to prepare this volume. Dr. Carpenter had shown, in his "Insect Transformation" (1921), done while he was professor of zoology in the Royal College of Science in Dublin and at the same time secretary of the Royal Irish Academy, and by his "Insects: Their Structure and Life" (1924), published after he became keeper of the Manchester Museum, that he had a grasp of the subject and a power of presentation in a very thoughtful and most interesting way that made him the man to do the insect volume in the biology series as it should be done.

It is very obvious that Mr. Savory, for example, who wrote "The Biology of the Spiders" in this same series, had a much simpler task than Dr. Carpenter's; and in fact the author of the present volume must have been put to it to decide just what to use in a book of this restricted size. The overwhelming number of insects, their extraordinary diversity in form, habit and function, and the great mass of accumulated and published knowledge would seem to necessitate the publication of several volumes on their biology instead of one. Dr. Carpenter, in his preface, acknowledges himself chargeable with the offense of omitting many subjects which might be expected to appear in such a book.

But to the person who examines the book with its wealth of interesting facts and its profusion of illustrations, the omissions will scarcely be noticed. The main topics considered in the fourteen chapters are, Feeding and Breathing; Movement; Sensation and Reaction; Behavior, Instinctive and Intelligent; Reproduction and Heredity; Growth and Transformation; Family Life; Social Life; Adaptations to Haunts and Seasons; Classification; Evolution; Insects and Other Organisms; Insects and Mankind. In all these topics Dr. Carpenter shows an extraordinary knowledge of the work done in many countries by many competent workers. He has hit upon