Letters

The Spectrum of Lightning

Leon E. Salanave's article "The optical spectrum of lightning" [*Science* **134**, 1395 (1961)] contains a bibliography which represents the most up-to-date and thorough compilation on this subject. However, in the course of recent work on the spectrum of lightning I discovered an additional important paper, by A. Steadworthy [*J. Roy. Astron. Soc. Can.* **8**, 345 (1914)]. This is important for two reasons: (i) the quality of Steadworthy's slitless spectrum is equivalent to published spectra obtained some 30 years later, and (ii) none of the later investigators make reference to this work. It is strange indeed that only a general text, Humphrey's *Physics of the Air* (ed. 3, 1940, p. 378), refers to this excellent photograph, which was evidently overlooked by all of the later investigators.

RICHARD E. ORVILLE
Institute of Atmospheric Physics, University of Arizona, Tucson

Classicists and Structural Linguists

Cheers for your editorial "Say it *ain't* so!" [*Science* **134**, 1493 (1961)] anent the new edition of Webster's dictionary, whereby you add your voice to those of the growing number of dissenters to the policies followed in its production.

Few in science have had occasion to discover that a turmoil exists among the experts in English. On the one side are those who are familiar to most of us—the classicists, the believers in a standard of quality in English, the respecters of the accepted great in literature, or, as opponents might say, the reactionaries. Opposed to them, with several ringleaders at the head, is a group which goes back some 30 years but has been actively proselytizing only in relatively recent years. These are the advocates of "observing precisely what happens when native speakers speak." These are the self-styled structural linguists, presenting language in a way so foreign that it might be imposed before users of the language discover its existence.

The debate between these two factions is at least one reason why such an organization as the College English Association does not essay something akin to the role of the French *Académie,* to give us a reasoned base line in our language.

The phrase quoted above is from a periodical issued gratis to teachers of English, *World Study*, from an article by Philip B. Gove, the editor-in-chief of G. and C. Merriam Company, publishers of the dictionary, in an article called "Linguistic advances and lexicography" (issue of October 1961). Gove declares himself flatly on the side of the structural linguists, calmly assuming, as do their other ringleaders, that they are about to take over. We now have a "linguistic science," and the Webster card index or its ilk is "the essential first step required by scientific method."

Those of us in science have at least two reasons to enter this story. One is that, in and out of science, the language is a precision tool of the most delicate quality. When it is used without regard to basic standards we are left with a rubber tool which bends with the wind, no better, in the degree distorted, than a rubber foot rule. The other is that our title of "science," unfortunately so attractive to those of nonscientific groups who with our approbation should be upholding the dignity of their arts and outlooks, is now being usurped by the linguists, with their language laboratories, phonemes, *ain'ts*, and the like. If they are unscientifically making a mess of our language by destroying base lines, approving of whims, and justifying much that is avowed error, we have an obligation to express our stand.

Webster's new dictionary has caused raised eyebrows and disapprovals ranging from mild to severe in every one of about a dozen reviews I have thus far encountered. Weighing the speech of casual speakers with no pretense of expertness on the same IBM card as usages of top-notch writers of past and present is an example of what the modern linguist calls "science."

Tabulation is not science. Public opinion polls do not settle questions of science or even of right and wrong. The thought that tabulation makes for science and correctness is a common but dismal dream. "An essential requirement for determining best usage is that it be actual genuine usage of such frequency as to be indisputably prevailing." If the guttersnipes of language do more talking than professors of English, they get proportionally more votes. If someone uses a word in fun it appears in the dictionary. One reviewer cited Willie Mays and Dwight Eisenhower as authorities quoted, certainly two men who have distinguished reputations but not, as I am sure they would be the first to say, in the realm of establishing standards in English usage. The "best" is what Gove chooses to think is the outcome of a sampling of good and bad speech, the only standard being whether or not it is used.

You say, "This we doubt," relative to the alleged use of *ain't* by cultivated speakers. Amen! Here is but a sample of the danger we face in language. This is a plea—may we hope a potent one—for the establishment of a proper Academy of English Usage to offset this voting-machine path which, uninterrupted, can lead only to regression.

MAX S. MARSHALL
Department of Microbiology, University of California Medical Center, San Francisco

Product "Recognition"

With regard to a recent item in "Science and the news" [*Science* **134**, 1349 (1961)] on the controversy within the American Dental Association over toothpaste "recognition," there can be no question as to the responsibility of either the Medical or the Dental Association for informing the public in regard to the latest achievements relating to its health and welfare. It follows that such associations have a further responsibility to recommend those products and procedures which have a proven value. For an organization whose "prestige" is based on public service and the