Communications

Can Scientists Write for the General Public?

I SEE from a news item in the February 5 issue of *Science,* page 179, that a batch of "science writers" have come to the conclusion that "scientists do not write well enough to communicate their work to the general public." A mere unlettered scientist myself, I do not presume to question this bit of crystallized journalistic wisdom, especially since the report offers the comforting assurance that journalists themselves "constitute the best possible (*sic*) link between scientist and layman." The difficulty is only that, lacking the insight of a science writer, I find these unqualified assertions hard to understand.

You note the statement that "scientists do not write well enough." Not some scientists. Not most scientists. Just scientists. Now, where did I get the idea that between Aristotle and Francois Bourliere there have been a few people who could make science and write about it too? Perhaps I have been deceived by hearing that Charles Darwin's books were rather effective in their own day. Maybe I am incapable of imagining how much better the *Introduction to the Study of Experimental Medicine* would be if Claude Bernard had had it ghosted. Possibly I have been misled by the continuing success of Sir Charles Sherrington's literary venture. Or it may be that, as a constant reader of the *Saturday Review.* I am confused by so frequently seeing the reviews of new books by people like Julian Huxley, George Gaylord Simpson, Homer Smith, Ashley Montagu, Caryl Haskins, N. J. Berrill, Marston Bates, and many others who are not supposed to be able to write.

Or it may be that the difficulty lies in my own perverted taste. Frankly, I have a weakness for such wit as may be found in Edgar Anderson's *Plants, Man, and Life,* for such grace as in William Morton Wheeler's *Social Life Among the Insects,* for such charm as in George W. Corner's *Ourselves Unborn,* for such poetic inspiration as in Rachel Carson's *The Sea Around Us.* But I do realize, of course, that no true journalist clutters up his work with wit, grace, charm, poetry, or other nonutilitarian qualities.

But now I begin to wonder if it is I who am wrong after all. Scientists who can write have been turned up at such rapid rate in recent years as to cast substantial doubt on their putative literary shortcomings. The explantion seems to lie in the fact that, just in the past decade, editors have begun to seek out literate scientists. The editors of *Scientific American* have demonstrated conclusively that scientists who can give a good popular account of themselves are no great rarity; and the people behind Pelican books and Mentor books have achieved the same result. I hope no one will argue that *Patterns of Culture* or *Ur of the Chaldees* would be better books if Ruth Benedict and Sir Leonard Woolley had let someone else write them. The whole situation reminds one of the recent demise of the ancient superstition that historians (overlooking an occasional maverick like Trevelyan) cannot write; today the historians are turning out readable books by the book-club-ful.

And why not? Good writing, after all, is just clear thinking. Anyone who can think well enough to make advances in any learned field ought to be able to write about his work. I am, of course, aware that many research papers submitted to scientific journals are, from a literary standpoint, putrid; but usually such essays are scientifically not very fragrant either.

When it comes to giving "the underlying principles and methods of science palpable significance for the nonscientist," the practicing scientist has an inestimable advantage over the journalist. The scientist knows, from his own experience, that science is a process, not an end-result; when he attempts to communicate the spirit of science, he is in a sense writing autobiography. It is not scientists who have foisted on the American public the delusion that science is a body of glittering miracles, or that scientific method is a sort of glorified jukebox—put in enough money and out come the jazzy strains of a dazzling new technique. If American science is to receive the long-continuing support it needs, the public must be given insights into the true nature of science, but mere superficial representations of the finished products. It would, of course, not be fair to imply that journalists cannot penetrate below the surface of research —Ruth Moore's brilliant new book would alone give the lie to such a charge—yet few have done so. "Science writers" do have an essential role to play in reporting the facts of science; but interpreting science is better left to scientists.

And one further point: nothing could be more absurd than to claim in 1954 that scientists "frequently resent the attempts to popularize science." From my own modest experience, I can say that those who essay to write popular science will find in the warm and generous approbation of their colleagues their best reward.

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Meter Versus Yard

I BELIEVE we should adopt the metric system. Why? For simplicity's sake!

For our first example, let us look into a classroom at a small boy who is having trouble remembering his units of measurement, for example, inches in feet, feet in yards, yards in rods, rods in miles, cups in quarts, quarts in gallons, gallons in hogsheads, pints in quarts, quarts in pecks, pecks in bushels, ounces in pounds, and pounds in tons.

As we look over the boy's shoulder, we notice a great lack of uniformity in the measurements, such as, 12 inches in a foot, 3 feet in a yard, and 16½ feet in a rod, and 320 rods in a mile. We can understand this lack of uniformity if we investigate the origins of some of these measurements. For instance, the first foot was the length of the king's foot; the first official acre was the amount of land a man could plow in 1 day; the first yard was the distance from the king's thumb to the tip of his nose; and, to top it off, the first official rod was the length of the left feet of 16 men lined up to go to church on Sunday!

On the other hand, let us look at a small boy in a country that uses the metric system. As we look over his shoulder, we notice a striking resemblance in the different types of measurements, such as length, mass, and volume. In all types, the words *micro-, centi-, milli-,* and so forth, are used. These few words (only about a dozen) are all that a person must remember when using the metric system. Furthermore, all units of measurement are based on units of 10. This speeds calculation.

Modern science has shifted almost entirely to the metric system. Many large industries have also adopted the metric system because it saves time and labor. What about the rest of us now?

Let's not let an inferior system stand in the path of progress. Let's all get on the metric bandwagon. And for the sake of our country, as well as for ourselves, demand that we have this better system.

Let us all throw the English system out;
The metric method wins without a doubt!

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In this issue devoted mainly to book reviews and several articles on the art of writing, it seems appropriate to include this short essay by Dennis Henkel, a 10-year-old boy, who became interested in science at the age of 8 and, according to one of his teachers, has read widely on "nuclear physics, general physics, and many other fields of science" and at the present time "thinks he would like to go into the field of theoretical physics."

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