alone. We take the mid-point of the 1955 Soviet test series as the production date for which it can be assumed, with a factor of uncertainty of 2, that 50 percent of the debris was of 1955 Soviet test origin.

On this basis, we suggest that Peirson and Stewart have underestimated the 1955 Soviet contribution by a factor of between 2 and 8, the Soviet-Castle ratio being thus affected by a much larger factor. The physical consequences of their interpretation indicate that the higher factors must apply. The remaining difference can be explained on the basis of differences in rate of deposition of Sr^{90} fallout from Castle for the two quite different periods considered.

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References and Notes

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2. ——— and P. J. Drevinsky, *Science* **132**, 1523 (1960).
3. N. G. Stewart, R. G. D. Osmond, R. N. Crooks, E. M. R. Fisher, *Atomic Energy Research Establ. (G. Brit.) Rept. No. AERE HP/R 2354* (1957).
4. D. H. Peirson, R. N. Crooks, E. M. R. Fisher, *Atomic Energy Research Establ. (G. Brit.) Rept. No. AERE–R3358* (1960).
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On Reading Original Papers

The light-hearted editorial, "Electricity and personal magnetism," in your issue of 3 March [*Science* **133**, 611 (1961)] makes amusing reading, but it exhibits the lack of understanding that is at the root of C. P. Snow's "Two cultures." While I cannot claim to have read all 2.5 million words of the "Great Books of the Western World," or even the 642 pages of Faraday's *Experimental Researches in Electricity* (and am in no way connected with the publishers or endorsers), I am sure that your editorial view of what constitutes good reading about science is an extremely limited one.

As I understand it, the writer of the editorial proposes that a reader be told what parts of a scientific work are "really great," what terms are to be considered "right," and where a scientist of the caliber of Galileo, Newton, Faraday, or Darwin was "wrong." Apparently he feels that it is a waste of time to "make one's way" through lengthy, outdated material in the classic works of science when the confirmed results can be condensed to half a page

in a modern textbook. And many of yesterday's scientists agree with him. From his point of view, all that counts in science are the currently accepted *results*.

Of course, most of your readers, including myself, *are* interested in results, but we would be blind indeed if we thought there were nothing else of importance in science but results. The scientific mode of thought, through which these results can be said to have been arrived at, is relatively recent in the history of mankind and is far from being accepted by the majority today —even by the majority of intellectuals. The acceptance of scientific results is easy—too easy—and has led to a common view of science very similar to that of magic in primitive cultures (see, for example, Malinowski's *Magic, Science, and Religion*). Most educated people "know," for instance, that matter is composed of atoms, but how many of them have a clear idea of the complex reasoning from necessarily incomplete and confused data that led to this concept? When the incompleteness and confusion are eliminated in a textbook, this isn't presumptuous so much as simply misleading. How can such treatment give any insight into the development of science or the turbulent frontiers of science today?

I dare say many criticisms can be made of the "Great Books of the Western World," but the criticism leveled in the editorial is not the one to make if you are interested in better understanding of science on the part of intelligent nonscientists.

THORNTON PAGE

Wesleyan University,
Middletown, Connecticut

Your editorial concerning the "Great Books of the Western World" completely misses the point. Editors of *Science* cannot be blamed, perhaps, for being unfamiliar with the wacky world of sales promotion and "consumer motivation," and with the workings of the unscientific mind.

The truth is that most of the people who buy the "Great Books" have no intention of actually reading the material. The set is a prestige object, an exhibit for guests, filling for a handsome bookcase, or a source of pride for a booklover.

I know a person who, having just installed a set of bookshelves, went to a second-hand bookstore and bought a box full of books selected at random for their covers. Buying a set of the "Great Books" is a more sophisticated way of doing the same thing. At the other end of the scale, there are empty ornamental book covers on the market for the economy-minded.

I'm serious!

KIRBY WALKER

609 Wendy Lane,
New Orleans, Louisiana

Your editorial points up most effectively the weakness of the "Great Books" curriculum. The advocates of such an educational sequence seem to imply that to be educated one must repeat the experience of the race, at least as represented in the writing of the great minds of history. But the true curriculum has to be a *short cut* to the experience of the race. And that conception does not preclude all first-hand contact with the writings of bygone centuries; it means simply that we must be sufficiently selective so that within practical time limits we may help the learner to gain understanding and control of his present environment.

P. W. HUTSON

University of Pittsburgh,
Pittsburgh, Pennsylvania

I agree completely with Thornton Page that there is great value in reading original scientific papers. The point of my editorial, however, was that the approach followed in the "Great Books" befuddles the general reader unnecessarily, and hence should not be

endorsed. There are also unnecessary opportunities for befuddlement in some of the humanities selections. Let me cite an example from the Jowett translation of Plato's *Republic*, which dates from the Victorian era and which is the translation offered by the "Great Books." As noted by Cornford in the preface to his own more recent translation, the reader of Jowett, when he lights on "the statement . . . that the best guardian for a man's 'virtue' is 'philosophy tempered with music,' might run away with the idea that, in order to avoid irregular relations with women, he had better play the violin in the intervals of studying metaphysics." Not only is this idea false, as the violinist in the Tabu ad has learned to his peril, but this is not what Plato meant by describing (again to quote Cornford) "*logos*, combined with *musiké*, as the only sure safeguard of *areté*."—J.T.

Economics in the News

The tenor of your staff reporter's observations on the economic philosophies supposedly animating the Eisenhower and Kennedy Administrations [*Science* **133**, 367 (1961)] prompts me to register an objection and to offer a constructive proposal.

As a political independent who participated in the preparation of all eight of President Eisenhower's annual economic reports to Congress, I find this piece both superficial and intellectually offensive. To identify the Eisenhower position with "the dismal science" while characterizing "Kennedy's economics" as "the dismal science made cheery" may be good enough journalism and may be assumed to be consistent with the emotional commitment of a substantial fraction of the scientific community. But the Carlylean allusion is anachronistic, certainly since the passage of the Employment Act of 1946 with strong bipartisan support; and the equally Carlylean hero worship manifested by your reporter is inappropriate, not only in a scientific publication but also in a pluralistic democracy in which the economic roles of the President and of the federal government altogether are deliberately confined and in which the "declaration of policy" inserted into an employment act must be so burdened with qualification that it cannot provide an unambiguous standard for administration.

As a member (fellow) of the AAAS, I suggest that the same kind of criteria of objectivity, reliability, and high seriousness that presumably apply to the section of *Science* devoted to research reports be extended to contributions to "Science in the News."