LETTERS

Synfuel Development

I wholeheartedly support Philip H. Abelson's suggestion (Editorial, 17 Aug., p. 649) that we look closely at the South African experience for producing fuels and chemicals from coal. It should be pointed out, however, that this technology was developed by an American company: the research and development, pilot plant studies, commercial design, construction, and initial operation and debugging of the process for Sasol I were performed for the Sasol Corporation by the M. W. Kellogg Company—now Pullman Kellogg of Houston, Texas.

As Abelson points out, there were difficulties in putting the plant on stream and getting it up to design capacity, but this often happens when new technology is brought to commercial scale.

The people of the United States need to know that we have vast technical resources in this country that can be tapped. We can develop our own synthetic fuels industry—if we can make up our minds that this is what we must do to ensure our future.

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Dorfman's Data Analysis

We return to the subject of our earlier exchange of letters (20 Apr., p. 242; p. 245) with D. D. Dorfman (20 Apr., p. 246) pertaining to his article "The Cyril Burt question: new findings" (29 Sept. 1978, p. 1177). We are neither condoning Burt's deficient reporting nor defending Burt's integrity. Burt's description of his work is very vague in many respects, and precisely because of this sloppiness it is impossible to determine, with the type of statistical investigation attempted by Dorfman, whether or not Burt fabricated data. We here focus on one particularly important example of an inappropriate use of statistics to detect fraudulent data (*1*).

When trying to determine whether data fit an assumed model "too well," one cannot reach valid inferences by Dorfman's technique of collapsing tables and rounding data in a manner exaggerating any regularity that may be present in the original tables and data. Such a technique followed by χ^2 statistics testing the collapsed and rounded tables for the constructed regularity can lead to the