

believe was properly represented in our article. It is with this view in mind that we believe that, rather than supporting the sort of programme which Professor Shockley seems to be advocating, the kind of effort put by the United States into getting a man on the Moon would be better directed to solving social and economic problems, racial or otherwise, in terms of the *environment*.

Yours faithfully,

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If the statement in the article in *Scientific American* that "in the present racial climate of the United States, studies on racial differences in IQ, however well intentioned, could easily be misinterpreted as a form of racism and lead to an unnecessary accentuation of racial tensions . . ." and the conclusion that "we do not see any point in particularly encouraging the use of public funds for their support" were intended merely as comments on proposals such as that of Professor W. Shockley (complained of in *Nature*, 228, 1013; 1970, but not mentioned in the *Scientific American*), Professors Bodmer and Cavalli-Sforza might have helped their readers by saying so explicitly. Editor, *Nature*.

SIR,—In your recent editorial comment (*Nature*, 228, 1013; 1970) on the suggestion by Professors Bodmer and Cavalli-Sforza that there be a moratorium on public research projects dealing with the etiology of observed differences in IQ scores between races, you ignore one of their main points.

It is a fact that there are many illiberal elements in American society who would be delighted to quote or misquote any so-called objective research in support of their viewpoint. I think the present state of knowledge in this field is such that virtually any research carried out is likely ammunition for the illiberal view, however specious their arguments may be.

Consider, for example, my own subjective impression that the educated professional blacks of my former acquaintance were not as intelligent, overall, as their white counterparts. I formulated this viewpoint while a student of psychology in the United States some 13 years ago, and because I was and am of liberal conviction, I concluded that my impression was caused by unconscious prejudice that I had picked up in some way. Consequently, I never voiced my impression, and maintained stoutly that there surely was no innate difference (intellectually) between whites and blacks. On moving to Britain some eight years

ago, I was soon struck by the reverse impression that educated professional blacks in Britain were, if anything, more intelligent than their white counterparts.

I now believe that my contrary impressions could have a kernel of truth. The American black is descended mainly from the former slave population, and it must be remembered that slaves obtained from Africa were often captured and sold in a trade which lasted for many decades. British blacks of my acquaintance seem to be mainly from Africa rather than descendants of slaves. Could not the selection factors involved in the establishment of the American black population have ensured that their gene pool differed from the blacks remaining in Africa? Surely the blacks who were captured for slaves must have tended to be different from those who escaped or, indeed, from some who acted as captors. High intelligence would undoubtedly help escape efforts.

If my observation is true, the best designed studies carried out in America will only support the illiberal contentions. British blacks cannot be used as controls because of cultural and language differences. Can anyone propose a methodology which would resolve all of these difficulties? In the absence of an adequate methodology, can we justify such research when we are aware of the immoral use that is sometimes made of the results?

Yours faithfully,

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Information Explosion

SIR,—In a review (*Nature*, 228, 966; 1970), Professor F. A. Jenner refers to "The more than exponential increase in scientific information". There has indeed been some increase, but it is far from being exponential, let alone "more than exponential". There has been a great increase in numbers of those involved in most kinds of research, and a phenomenal increase in expenditure, but the amount of information produced, if by information we mean scientific papers describing original work, has been very disappointing. The most noteworthy change in the past 30 years has been the increasing sterility of research workers, and the way in which so much money has been spent with little to show for that expenditure.

Yours faithfully,

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Obituary

Professor G. Hübscher

GEORG HÜBSCHER, foundation professor of biochemistry in the new Medical School of the University of Nottingham, died suddenly after suffering a heart attack on November 3, 1970.

He was born in Berlin and studied medicine both at the Humboldt University and the Phillips University in Marburg an der Lahn. His interest in biochemistry was soon apparent from his work on the preparation and properties of heart muscle cytochrome c in Professor Kiese's laboratory in the Pharmacological Institute at Marburg. The results of this research were accepted in 1953 in fulfilment of the requirements for the MD degree. He completed his medical training at the St Elizabeth Hospital, New Jersey. Georg Hübscher then joined D. E. Green's department at the Institute for Enzyme Research in Madison in 1954 where his interest in enzymology was fostered by studies on the purification and mode of action of uricase. In 1956 he came to England to work in Professor A. C. Frazer's Department of Medical Biochemistry and Pharmacology in Birmingham where in 1964 he became senior lecturer and later reader. He found scope to develop a dynamic teaching programme in intermediary metabolism and enzymology and to gather together a thriving research team to study the biosynthesis of phospholipids and other glycerides in liver and intestinal mucosa. He soon established himself as an authority in these subjects and was awarded the degrees of PhD in 1957 and DSc in 1964. Among his notable contributions to the field of lipid metabolism were the discovery (with B. Clark) of the pathway of resynthesis of triglycerides in the mucosa of the small intestine by direct esterification of monoglycerides and the isolation of phosphatidic acid from ox liver. More recently, his interests were concerned with pathways of phosphatidic acid and glyceride biosynthesis in microsomal and mitochondrial preparations of rat liver and with the short and long term control of the levels of glycolytic enzymes in the mucosa of the small intestine. He was a member of the editorial board of *Gut*. In 1967, he was appointed foundation professor in the new Medical School at Nottingham. He threw himself with zeal into the tasks of establishing a new and active department.

The tragic death of Professor Hübscher at such an early age has meant a great loss to the new Medical School, whose first undergraduates had arrived only a few weeks before. A man of humanity, integrity and energy, he would have had much to offer future generations of medical and science students at Nottingham.