

BOOK REVIEWS

EXPLOSIVE BIOLOGY

The Biological Time Bomb

By Gordon Rattray Taylor. Pp. 240. (London: Thames and Hudson, 1968.) 35s. net.

BIOLOGY is teeming with ideas and techniques which will soon be used to manipulate man himself; we are going to feel the consequences for good or ill far more than at present. These are the lessons of this book. How true are they?

I must agree about the rapid advances in knowledge of biology, and the author certainly provides plentiful evidence for them. We are piloted through several major areas of established research, which are fairly described. There are also chapters on speculative advances, including the prevention of death and new minds for old.

We are liberally supplied with quotes, warnings, experiments. Ideas near to science fiction are brought out, their application to man plotted on an impending time-scale, and many shown to be imminent. The author is knowledgeable, can marshal and present facts well, and has put a great deal of truth into the book. Many of the prophecies are likely to come true. Medical advance is so rapid that some of the author's comments on ethical problems that could be raised by transplantation surgery have come true since the book was written. The scope of biology and scientific medicine is now so wide that successful experiments on animals can be applied immediately to man—witness the "pill".

But the pity of this book is that whereas it could have provided a well-balanced discussion of problems arising from the application of biological knowledge, it fails to do so. It is patently obvious to many people that the development of powerful new biological tools demands care and forethought in their application to medical and social practice. Responsible comment is therefore welcome and needed. Sadly, the bias of this book is too often against good judgment.

In parts, the author summarizes clearly the issues involved as in the development of contraceptives or the provision of kidney machines. But elsewhere the rational arguments are lost in excessive forecasting. The wilder speculations such as monkeys with human hands or disembodied brains conferring immortality could well have been omitted for this reason. The elaboration of new drugs or new methods need not lead us into some of the circumstances portrayed. Difficulties are bound to occur. But we have experience of the unexpectedly harmful issues resulting from benevolent discoveries, and we are learning how to handle the ethical and legislative aspects. Consideration could well have been given in the book to the implications of current medical advance. Some of these are explosive enough, and perhaps more urgent than the topics selected by the author. How about the conservation of deleterious mutant genes as the original selection forces against them are relaxed by improved medical services, or the social problems resulting from the differential increase in population growth of

religious or racial groups in various countries now that contraception and legalized abortion are so widespread?

Even though the author dismisses early on the image of biologists as absent-minded academics unable to communicate their ideas outside their immediate colleagues, subsequent chapters still label many of them as naively experimenting away without thought of the consequences. If this be true, the author's solution to the problems of emergent biology is unlikely to work.

He suggests the creation of committees of the Royal Society and other organizations to lay down the ethical guidelines and outlaw such aspects of research as necessary. But the biologists themselves, who were so inept in the early chapters, will have to be on these committees to provide the necessary know-how. By all means let us have open discussion of all the implications of biological research. But I doubt that rules issued by such committees would be binding in a free society where standards change so rapidly and the freedom of the individual is prized. The difficulty in framing rules of general acceptability is shown, for example, by the change in attitude since pre-war to studies on contraception, the impasse a few years ago over the abortion of deformed foetuses and (I suspect) the very recent change in some quarters towards the acceptability of organ transplantation.

This book will publicize many of the problems that scientists are facing now and that everyone will ultimately have to face. But readers could easily be misled about biological research by the inclusion of the possible with the wildly improbable and by the understatement of many benefits possible from biology. The alleviation of schizophrenia, death from cancer, or the problems facing a family with a deformed child, all of which will be probably achieved with the biological methods outlined in this book, would be invaluable. Their solution is unlikely to lead to biologists becoming society's "accursed scientists".

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SCIENCE AND HUMANITY

The Essence of T. H. Huxley

Selections from his writings edited with several brief interpretative essays by Cyril Bibby. Pp. xiii+246. (London: Macmillan and Co., Ltd; New York: St Martin's Press, Inc., 1967.) 38s. net.

The Huxleys

By Ronald W. Clark. Pp. xvi+398+27 photographs. (London: William Heinemann, Ltd., 1968.) 63s. net.

IN the light of the Dainton report, it would be idle to deny that, in this technological age, science has lost some of its attraction for young people. These two books are therefore timely; for few great scientists have enjoyed such popular esteem as T. H. Huxley, and several of those descended from him have continued to play notable public roles. Dr Bibby and Mr Clark, in different ways, both show why this should be so, and thus they make an important contribution to the so-called "two cultures" argument. The key to the matter is that, as Huxley said, "science and literature are not two things, but two sides of the same thing". Dreary literature is as boring as dreary science, but science illuminated by a human imagination can have an effect as powerful as that of great art. Both have human value, both deal with things that are important for real people; and both scientists and artists sometimes fail to take this into account.

All of T. H. Huxley's work shows an intense preoccupation with his fellow men, particularly, of course, his lectures to working men. Dr Bibby confines his selection mainly to the "popular" essays and lectures, but the textbooks and the scientific papers also exhibit the same