

Book reviews

Genetic Risk: a Book for Parents and Potential Parents.

By STEPHEN THOMAS. Penguin Books. 1986. 192 pages. £3.95. ISBN 0 14 022617 6.

Several years ago Stephen Thomas attended a genetic clinic to receive counselling on an unspecified disorder. It is an experience which has been shared by thousands of people, particularly in the developed world where the progressive conquest of infectious disorders has focused more attention on inherited diseases. Many first-time counselees react to genetic advice with anger and dismay, and ultimately with guilt. Professional counsellors are aware of this, and know that part of the art of communication is to wait until the shock and self-pity have abated and the patient is ready to talk realistically about prospects. 'No one ever takes in hard genetic facts at the first visit' is a standard dictum of the trade.

Thomas, who has degrees in history and law, felt that much of the wretchedness of his own experience stemmed from his ignorance about genes, chromosomes and reproductive risk. He has set out to write a book which will acquaint parents and potential parents with some of the basic biological facts that underpin reproduction and which will give them a fundamental awareness of their degree of genetic risk. Undoubtedly this is a laudable aim. However, most scientists will know that the problem of genetic ignorance has its roots in our system of specialized secondary-school curricula, which turns out people regarded as educated and literate but without any knowledge of the simple tenets of 'O'-level biology. The non-scientific professional is a particularly difficult person to counsel; he or she has the benefits of a university training but must now grapple with a side of life hitherto thought to be irrelevant.

It is my guess that those who are unfortunate enough to find themselves in a genetic counselling clinic would appreciate a biological primer, long on genetic facts and short on the moral and ethical dimensions. Thomas has taken a different tack. He is fascinated by the way in which reproductive issues have moved to a prime position in the public consciousness, and intrigued by the passionate debate

on the moral implications of new technical developments. Almost inevitably, with such a slant, the longest chapter in the book is on artificial reproduction – husband and donor insemination, *in vitro* fertilization and even surrogacy. These themes are dealt with in style and with some fascinating side-lights. I had not realized that as recently as 1948 a Church of England commission had stated that AID was adultery, wrong in principle and contrary to Christian standards. They recommended that it be made a criminal offence. It needed a learned Scottish judge to observe, some ten years later, that AID could not be adultery, since it lacked the essential – and presumably enjoyable – component of *conjunctio corporum*.

But what, one may ask, does this have to do with genetic risk? Most parents or potential parents in a genetic clinic are concerned with the risks of occurrence or recurrence of specific named disorders. Thomas covers the facts of meiosis and mitosis with competence, and is sound in drawing distinctions between the principle modes of inheritance of single gene defects. However, beyond that his lack of biological training begins to show. Genetic heterogeneity is mentioned but obviously not understood, while the discussion of multi-factorial inheritance is somewhat confused. Conditional probabilities, the key to counselling in *X*-linked recessives, are not even mentioned. There is an extended chapter on decision-making, which largely ducks the issues in its reliance on the extended anecdote.

I have to say that I greatly enjoyed reading the book, for Thomas writes fluently and with concern for his subject matter. However, I would tend to keep it away from the audience for whom it is intended.

D. J. H. BROCK
Human Genetics
Western General Hospital
Edinburgh EH4 2XU

Manipulating the Mouse Embryo: A Laboratory Manual. Edited by BRIGID HOGAN, FRANK COSTANTINI and ELIZABETH LACY. Cold Spring Harbor Laboratory, 1986. 350 pages. Paper \$60. ISBN 0 87969 175 1.