

# Book Reviews

## GENETICS AND SOCIETY

Edited by Jack B. Bresler. Addison-Wesley Publishing Company, in the Life Science Series, Reading, Mass., Menlo Park, Cal., London and Don Mills, Ontario. 1973. Pp. 281. Price \$4.50.

This collection of readings, the jacket blurb asserts, "represents one of the first attempts to introduce students to the newly emerging, rapidly developing field of *socio-genetics*, as distinct from categories such as Mendelian, evolutionary, biochemical and physiological." The 21 papers selected by editor Jack Bresler were chosen on the basis of brevity, recency of publication and lack of refined mathematics beyond the grasp of college students with a first-year course in genetics and biology behind them.

The symposium seems to this reviewer admirable in several respects. The collection is singularly free of the piety toward environmentalist explanations of social phenomena which is still both rife and fashionable in the American academic world. The articles are, to an unusual degree in a college-level collection, original contributions which shed new light on some of the interrelationships subsisting between the advancing science of genetics and institutional, reproductive, I.Q.-fertility, hybridization-fertility and other related patterns. For the most part, they are culled from such outstanding periodicals as *Science*, *Nature*, *Journal of Heredity*, *Lancet* and *Perspectives in Biology and Medicine*.

John H. Heller's article on "Human Chromosome Abnormalities as Related to Physical and Mental Dysfunction" is a valuable summary of what is currently known concerning the various chromosomal polyploidies and aneuploidies such as Down's syndrome, cri-du-chat, the Turner and Klinefelter syndromes and the XYY males. Total occurrence of these genetic faults in the U.S. population of 202 million is placed at 1.1 million (1969). Since Klinefelter and Down syndromes are strongly positively correlated with age of mother and since both produce mental deficiency, postponement of the age of marriage, as in Ireland, may cause increased incidence of amentia.

Brief articles demonstrate that patterns of alcohol and coffee consumption are probably genetically conditioned (analysis of monozygotic twin behavior) and that Chinese-American and Caucasian-American neonates show radical differences in reaction to stimuli, the Chinese-American infants displaying "relative imperturbability or ready accommodation to external changes." Another brief paper shows conclusively that Welsh fertility is consistently lower than English and that this difference is probably genetically caused. An equally careful investigation of the fact that twin-I.Q.s average about 5 points below those of singletons and triplet-I.Q.s some 10 points lower demonstrates that the difference is probably neither genetic nor caused by uterine environment.

In a technical article on "Freeze Preservation of Human Sperm," Behrman and Ackerman make suggestions which seem to this reviewer illuminating. First, a protected sperm bank, containing material from men of outstanding intelligence, health and vigor, would mitigate some of the genetic consequences of possible nuclear holocaust. Second, artificial insemination of women with previously frozen sperm carries with it the possible dangers of natural selection of parental donors on the basis of comparative ability of their sperm to survive the freezing process and gene selection from the same donor on the same basis.

Editor Jack B. Bresler's article, "Outcrossings in Caucasians and Fetal Loss," originally published in the 1970 issue of *Human Biology*, casts important light on possible consequences of race-crossing in man. Some 708 family histories of women patients in the Providence Lying-in Hospital were taken. Only patients all of whose great grandparents were of the white race were included in the sample. The number of countries where the great grandparents were born was positively correlated in linear fashion with miscarriage and involuntary abortion: "... fetal loss ( $F_1$  generation) in matings of the parental generation ( $P_1$ ) increases cumulatively by approximately 2.5 per cent to 3 per cent with each additional country of birth in the great-grandparental generation ( $P_3$ )." A less precise positive correlation was found between percentage of fetal loss and distance in miles between the birthplaces of the parents. In a previous study, Bresler showed that the greater the number of national origins in the background, the smaller was completed mean family size. The explanation, Bresler states, is probably genetic: as larger numbers of Mendelian gene pools are brought together "with concomitant imbalance between loci, fetal loss increases."

The collection contains two articles by this reviewer, "Some Genetic Aspects of Plantation Slavery" and "Some Possible Genetic Implications of Carthaginian Child Sacrifice," both from *Perspectives in Biology and Medicine*.

NATHANIEL WEYL

#### SMALL IS BEAUTIFUL

By E. F. Schumacher. Blond and Briggs, London. Pp. 288. Price £3.25 in U.K. only.

This book by the economic adviser to the National Coal Board 1950 to 1970, founder-chairman of the Intermediate Technology Development Group and director of the Scott-Bader Institute is a first study of economics as if people mattered. It is therefore of importance to readers of *THE MANKIND QUARTERLY*.

Western culture is based on economics, a quantitative art of limited value; on science which has no connection with religion or metaphysics; on concepts of growth in a world of finite resources. Since the USA with 5.6 per cent of the world's population uses 40 per cent of the world's primary resources it is obvious that their culture is not for export. Schumacher pours scorn on big fantastic notions of government planners but desiderates a multiplicity of small-scale units. In his view Sicco Mansholt's agricultural plan is the crudest materialism.

He examines the Victorian teachings which led to our amoral cultural pattern, dominated by private enterprise and its growth into huge corporations. He suggests at the end of the book how these companies could be converted to more socially valuable units without sickening loss to individual investors. More importantly he describes how intermediate or appropriate technology can come to the aid not only of millions of villages in the Third World but also in many of the poorer parts of the developed world. Here is a field of endeavour for scientists and technologists who wish to avoid the violence and greed of Western culture as it is.

The present system has appalling genetic consequences. The brightest and most enterprising people leave the country for the cities, which are unable to absorb them. In rural and town areas there evolves an indigenous élite who have lost contact with the ordinary people. Schumacher recognises that only a tiny minority are innovators, but he thinks that a university education should become, not a passport to privilege, but a training for