behaviour disorder, and sex chromosome abnormality for the data which it provides. It cannot be recommended as a good review of the history of this field for those not already familiar with the literature.

M. D. CASEY

Birth Defects. Edited by A. G. Motulsky and W. Lenz. (Pp. xviii+373; figures+tables. Dfl.105.00.) (International Congress Series No. 310.) Amsterdam. North Holland. 1974.

This book covers many aspects of the causation and management of birth defects. Although the term 'birth defects' means 'conditions of prenatal origin . . . manifest at birth or various ages later in life', the subject of this fourth international conference sponsored by the National Foundation—March of Dimes deals with malformations and diseases which are congenital, or which are apparent in infancy. This volume presents the papers of the invited speakers, and gives summaries of the workshops. Such selectiveness is good, and indeed the abstracts of the free communications are available in an earlier publication (International Congress Series No. 297). The subjects of the invited papers are wide-ranging and include cellular and molecular biology, precise analysis of chromosome structure, sex determination and differentiation, epidemiology and teratology, prenatal diagnosis and genetic counselling. In an interesting pair of papers M. M. Kaback and G. Stamatoyannopoulos describe the effects of genetic screening programmes in two very different communities. The most valuable workshops were those on the regulation of gene expression (J. D. Ebert), the management of spina bifida patients and their families (C. O. Carter), and the treatment of genetic disease (C. R. Scriver). The volume is completed by two chapters by the editors. A. G. Motulsky discusses the ethical aspects of the genetic advances presented. He points out that in practice the medical geneticist who considers only the best interests of a particular family will rarely have any ethical problem to face. W. Lenz provides a thoughtful summary of the conference.

Most geneticists will find one section or another particularly to their taste but an important use of the book is as a source of reference for those subjects less well known. As most papers are written as reviews, with current work explained and put into perspective, they will be useful even when further work has modified or added to some conclusions. All those who are interested in the aetiology, prevention, and treatment of birth defects will find this a helpful and stimulating book.

SARAH BUNDEY

The Genetics of Locomotor Disorders. By C. O. Carter and T. J. Fairbank. (Pp. xii+170; tables. £5·00.) Oxford University Press. 1974.

Individual constitutional disorders of the skeleton are particularly difficult to define unless, like rickets and the mucopolysaccharidoses, they have consistent biochemical lesions. Many variations occur on the common themes of proportionate and disproportionate dwarfism, spinal, cranial, and limb malformations, while diagnostic overlap and mimicry are so common that the practical application of any classification, however logical, soon breaks down. Thus, no nomenclature of constitutional disorders of bone is entirely satisfactory and Dr Carter and Mr Fairbank have wisely not attempted yet another. They have chosen common sense chapter headings of several types. Thus, some relate to the site of main disorders, eg, metaphyseal, epiphyseal, spondylo-epiphyseal, or to localized abnormalities of the limbs, skull, face, and spine. Other chapters are devoted to the muscular dystrophies, to errors of timing of development (anarchic development of bone and cartilage), to syndromes, and to inborn errors of metabolism affecting the skeleton. In view of the companion volume in the Oxford monograph series by Dr Pratt only brief reference is made to neurological conditions of skeletal significance.

This book is a complete and up-to-date summary of inherited musculoskeletal anomalies presented in a particularly clear and non-discursive manner. The clinical descriptions are brief and the atlases listed in the bibliography are necessary to define the large number of entities involved but the clinician and geneticist using 'The Genetics of Locomotor Disorders' will be able quickly to determine for any condition the probable mode of inheritance and key references for further reading. This reasonably-priced and well-produced book is a very welcome addition which will illuminate a currently rather confusing area.

RODNEY HARRIS

Human Gene Mapping. Edited by Daniel Bergsma. (Pp. 216; figures+tables. $13.50; £10·00.) New York: Intercontinental. 1974.

The rapid exploitation of incomplete rejection of human chromosomes by some hybrid cells, especially from mice and Chinese hampsters, has lead to many observations which needed to be integrated with the results of the classical methods of pedigree analysis, results which can now be supplemented by the identification of harmless chromosomal variants. The integration of these results involved difficulties in terminology, in the weighing of evidence, and in the identity of enzymes; the problem of enzyme identity can be particularly difficult since red cells and the cells established in culture often have different enzymes with similar functions, and names are based on function. Further, many laboratories specializing in hybrids do not have regular access to individuals whose heterozygosity could be checked on several tissues.

The New Haven Conference, appropriately sited at one of the major laboratories exploiting hybridization, resolved a number of problems, and identified others; this book provides a 'state of the art' review as of summer 1973. As such it is a valuable contribution to the literature on linkage. Unfortunately it is rather expensive, in part because of the excellent binding and production which are hardly justified by the rapidity of change of the subject.