The Biochemistry of Myasthenia Gravis and Muscular Dystrophy Edited by G. G. Lunt and R. M. Marchbanks. (Pp. 373; illustrated; price not stated.) Academic Press: London. 1978.

A symposium on myasthenia gravis and muscular dystrophy, organised by the Biochemical Society, was held at Bath University in March 1977. The aim was "to stimulate the interests of investigators in areas of neurobiology where scientific understanding has developed to such a level that it can readily be exploited in the interests of the patient." The book is divided into two parts, one concerning myasthenia gravis and the other muscular dystrophy. The section on myasthenia gravis is more comprehensive and authoritative since so much is known about the pathogenesis of this disorder. The first 14 chapters describe the basic molecular biology of myasthenia gravis with concise discussions of the components of cellular and humoral immunity in this disease and in the experimental model. There are six chapters on the biochemistry and two on the special histopathology of muscular dystrophy. The remaining eight chapters are devoted to possible animal models of muscular dystrophy.

The explosion of knowledge in immunology in general, and in that of myasthenia gravis in particular, has meant that the section on myasthenia gravis is already almost out-of-date. The section on muscular dystrophy, a disease of unknown aetiology, better fulfils the purpose of the book. This symposium will be of interest to neurologists, immunologists, and those clinicians dealing with muscle disorders. The potential reader will find here a worthwhile summary of existing knowledge by experts in the fields of myasthenia gravis and muscular dystrophy.

P. O. BEHAN

Adverse Mechanical Tension on the Central Nervous System By Alf Breig. (Pp. 264; illustrated; £38.00.) Almqvist and Wiksell: Stockholm. 1978.

This important monograph is a sequel to the author's previous text on *Biomechanics of the Central Nervous System*, published in 1960, and brings the whole subject up to date, introducing new hypotheses of the functional anatomy and physiology of the spinal cord, hind-brain, and nerves in relation to

the author's cadaveric and clinical studies. As the title proclaims, unfavourable mechanical tensions may occur in the nervous system and result in various clinicopathological disturbances. The approach is in some respects mechanistic and simplistic when it is related to the many complex and diverse neurological traumatic lesions and diseases described by the author including, for example, trigeminal neuralgia and demyelinating disorders. I would mention that it is known that the vertebral column can undergo severe physical stress with immediate or delayed deformation of neural and vascular elements without the development of any significant clinical disturbance, and there appears to be a built-in reserve in the degree of mechanical tension that can safely occur. Much depends also on the temporal acuteness of the deformity. A degree of "mechanical tension" may be physiologically necessary for the proper functioning of tissues, including nervous tissue.

The immaculate studies of Breig, which are so well set out in this beautifully produced book that contains an abundance of excellent drawings, radiographs, and photographs, clearly demonstrate many of the important aspects of the biomechanics of the hind-brain, spinal cord, and their nerves, and for this reason is essential reading for those working in the field of the neurosciences, both at basic and at clinical levels. The subject is not well appreciated or understood, and is poorly taught in many medical schools and in centres for the training of specialists in the remedial professions.

Living animal experiments to confirm the author's human cadaveric and clinical studies would be most valuable, to help to confirm his theories regarding the treatment which he has used in a small number of patients. In addition, I would like more information about the possibility of "axonal regeneration" in the spinal cord (page 243). If possible, some "matched controlled" human clinical or, more practically, animal studies concerning the benefits of the author's intriguing "functional neurosurgical" procedures would be of great value. In this respect it must be noted that Breig uses this latter term to denote that the primary aim of treatment is "to restore normal conductivity in the nervous system." (The term "functional neurosurgery" is used quite differently

in other spheres of neurosurgery). Some of the therapeutic applications of Professor Breig's researches in injury and disease of the nervous system are rather unorthodox and controversial. Basing his therapy on four "basic histodynamics": (1) a unilateral thrust from without; (2) a multilateral thrust from within; (3) pinching or clamping; and (4) concentration of tension in intact nerve fibres around an intramedullary (intracardiac) fissure (notch stress), he recommends these procedures: (a) cervicodoloresis (a special operation to restrict neck flexion) for any of these situations; (b) protective acro-cristectomy and bilateral laminectomy for "pinching or clamping" adverse mechanical tension conditions; and (c) for cervical spondylotic myelopathy, cervicodoloresis, and also either acro-cristectomy or bilateral laminectomy. Another recommendation arising from the author's studies is that skull traction should not be used in the treatment of patients with serious cervical spinal injuries. Instead, he recommends a special form of laminectomy or acro-cristectomy, followed by cervicodoloresis.

I would ask all authors and publishers of books to give a page reference in the text of a figure, photograph, chart, or table, if any of these items are not on the same page or the facing page of the reference—this would save time and make the book easier to read.

This is a critical review of what is a very important book which contains much original material not available elsewhere. It is most unlikely that anyone reading this book will fail to be informed, in a most stimulating way, of new concepts of the functioning of the nervous system.

PHILLIP HARRIS

La Dominance Cérébrale. Une Anatomologie Edited by H. Hecaen. (Pp. 479; illustrated; frs. 140.) Mouton: Paris. 1978.

This is a collection of 30 papers on cerebral dominance ranging from Broca (1865) to Hecaen and Sauguet (1970). Of the 30, 24 were originally published in English, two in German, and the remaining four in French. They all appear here in French, where necessary in translations ably and competently provided by Serfaty, Goldblum, and Kremin. To single out 30 contributions from the voluminous literature on the