

disorder. It is often at school-leaving that these are flushed into an unsupported open. Where before these patients were tidied away into the mental hospitals, now the pursuit of care in the community means that this provision is no longer available. Many alternatives are suggested, but few succeed in the face of inadequate funds, enthusiasm, or expertise. Here is a useful introduction for those who find that they have to suggest and implement yet one more solution.

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**Viruses, Immunity, and Mental Disorders.** Edited by EDOUARD KURSTAK, Z. J. LIPOWSKI and P. V. MOROZOV. New York: Plenum Publishing Corporation. 1987. 468 pp. \$65.00.

This volume contains the proceedings of the first World Conference on Viral Diseases, Immunity & Mental Health, held in Montreal in 1984. That it has taken nearly four years to reach the shelves probably reflects the massive editorial task of soliciting 42 chapters from 136 international contributors.

The first of the five sections concerns viruses and organic mental disorders. The opening chapters discuss slow viruses and transmissible dementias. Although this area is fertile ground for conjecture and controversy (e.g. should such agents be regarded as viruses or not?), there is also considerable consensus. Other worthwhile contributions review the sequelae of herpes virus infections (Greenwood) and infectious mononucleosis (Hendler), the latter lucidly considering the difficulties of studying psychopathology due to the ubiquitous EB virus.

Part 2 relates to viruses and functional mental disorders. The viral hypothesis of schizophrenia has been enthusiastically pursued in Eastern Europe, and it is an engaging feature of the book that contributions from the Eastern bloc appear alongside more familiar sources such as the Northwick Park group. The empirical evidence presented here is less than persuasive. A Czech/Soviet group found raised HSV antibody titres in schizophrenic subjects, but only in Czechoslovakia, not in Siberia. They were unsuccessful in isolating viruses. Other Russians found paramyxoviruses in post-mortem brains of 'febrile schizophrenia' cases, but the diagnosis would not be universally recognised and clinical detail is inadequate. Israeli and Italian virological and immunological studies were also negative. The only chapter in this section not on schizophrenia (Amsterdam *et al*) is an interesting small study demonstrating antibodies to Borna virus in some affective disorder patients. Experimental inoculation of the virus in tree shrews produces a chronic cyclical behavioural syndrome, potentially a model for bipolar disorder.

The third section discusses various models of possible

viral aetiology of neuropsychiatric disorders. These chapters are of limited interest to clinical psychiatrists.

The longest part of the book is entitled 'Immunity, interferon and psychiatric disorders'. A reader limited for time is recommended to read no more than the excellent review by DeLisi which introduces the section. It is authoritative and more balanced than some other contributions. Various immunological abnormalities have been identified, including decreased immunoglobulins, abnormal lymphocyte function, and autoantibodies. The problem remains that it is unknown whether such observations bear any relation to aetiology or are secondary phenomena.

The final section is a miscellany, including a workmanlike review of encephalitis lethargica by Hoenig & Abbey.

Frequently stimulating, this book contains contributions from leading authorities, and demonstrates the limits of knowledge in several directions. On the other hand, most of the worthwhile material has already been published; and, if not, the rest cannot have impressed the peer reviewers! It is already dated in that only two chapters concern AIDS, and the discussion of the post-viral syndrome has also been overtaken by recent advances. My overall impression is paradoxical: I enjoyed reading it, but could not wholeheartedly recommend its purchase. Borrow it if the local library has a copy, or skim through it in the bookshop.

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**Humors, Hormones and the Mind.** By BERNARD T. DONOVAN. Basingstoke: Macmillan. 1988. 291pp. £4.00 (pb), £14.95 (hb).

This book is an overview of human hormonal action, their controlling mechanisms, and most importantly their effects on behaviour. It is written by a well-known authority and is aimed at a wide readership, including the non-specialist. Donovan has written a clear non-technical book that is easily accessible and never boring. Indeed, even for the specialist a book of this nature is most welcome, as the profusion of knowledge in the field makes it at times difficult to see the wood for the trees.

The book is divided into three sections: an introductory section, a section on hormonal systems, and the final, and longest, section which discusses hormonal effects on the mind. The artificiality of such a layout is recognised by the author, who provides numerous cross-references so that those seeking more substantial information can easily access other sections. The meat of the book is the third section, which deals with hormonal effects on behaviour, including chapters on the hormonal contribution to masculinity and femininity. By avoiding dogmatism and combining fact with scientific

anecdote, this part of the book succeeds well, providing entertaining and informative reading.

This is a modestly priced book by current standards and can be recommended as a worthy introduction to the effects of hormonal action and human behaviour.

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**Search for the Causes of Schizophrenia.** Edited by H. HÄFNER, W. F. GATTARZ, and W. JANZARIK. Berlin: Springer-Verlag. 1987. 386 pp.

Lord Rutherford is said to have observed in a physics colloquium that he could not keep up with the literature in his subject because he was too busy writing it. Today, in the case of schizophrenia, scanning even the majority of the relevant new papers and books could leave little time for original research, but in this flood of information – which is in fact far from consistent within itself – a special volume from Heidelberg deserves some priority. It is special firstly because it records a meeting held on the University's 600th anniversary, and secondly because that city has almost certainly been the most important single venue in the history of schizophrenia. As Carpenter points out, many of the essential questions, methods, and initial contributions first emanated from there, while its professorial trio of Kraepelin, Jaspers, and Schneider is almost certainly unbeatable in any international league. The occasion resulted in a work of 33 chapters which contains much impressive material. Each section concludes with a critical discussion, and there is a final summing-up by Häfner.

One major theme is that of cohesion versus diversity. On the question of classification, Sass describes both increasing uncertainty as to where the boundary should be drawn between idiopathic psychoses and those of organic origin, and a prevailing view that the schizophrenias are a group of aetiologically heterogeneous disorders, which break down into different nosological subgroups. On the other hand, Wing says firmly that "I cannot see the concept of schizophrenia being abandoned for a long time to come", even though it is unlikely to emerge as "a kind of inviolable Platonic disease entity". For him, the reliable description of phenomena is the central issue, not least because "it does justice to what patients and their relatives are most concerned about"; the great achievement of Heidelberg psychiatry was "the lipid exposition of phenomenology".

Probably the most important contribution here is Häfner's own on epidemiology. He rightly points out that aetiological models should be consistent with epidemiological data, but that because of their composite nature, prevalence rates are not generally suitable for

testing such hypotheses. One intriguing aspect is the delayed onset and relatively more benign course in females over the first three years; after that, a rapid catching-up of morbidity suggests that a possible protective effect of oestrogen on dopamine metabolism might have become eroded. Zubin asks whether incidence rates might be affected by differences in mortality, but does not stay for an answer; this could well be a most important question about the data from developing countries. In relation to the course of illness, Strauss suggests that recent research is returning to the Kraepelian notion of longitudinal processes. He sees outcome as heterogeneous, with such features as symptoms, work capacity, and social relationships all related to each other yet partly independent, and each tending to show some consistency over time. In Strauss' view, studies of arousal, like most other concepts of schizophrenia, see patients too much as the passive objects of environmental forces and of the disease itself, whereas they might be helped to play a more positive role, for instance through Brenner's attempts to modify cognitive deficits.

The section on genetics shows Strömngren somewhat playing devil's advocate, suggesting that adoption studies have over-estimated the genetic contribution. Yet it certainly seems true that whatever may be inherited, schizophrenic symptoms and malfunctioning are acquired by social learning and human interaction, and that as long as we have no markers for any nosological entity within schizophrenia, the 'validity' of diagnostic criteria remains quite arbitrary. Hirsch, reviewing the biological chapters, suggests that the concept of a maturational defect could both fit the generally accepted genetic evidence and explain the early onset of adult schizophrenia. The model of neuroleptics simply blocking the dopamine receptor has become more sophisticated, and he suggests the possibility that variations in dopamine levels within schizophrenic brains might be due to inherent left-right differences, which are not related to the illness but become evident after the brain has been exposed to neuroleptics.

A focus of much discussion here is the role of life events and their 'independence' of the relevant illness, which proves to be a much more complex matter than was envisaged 20 years ago. Tsuang points out that their occurrence may in fact be related to a patient's social network and his personality, while Dohrenwend devalues recent stressful events and network factors, in comparison with class-related socialisation experiences in adverse family and other early environments. Like his countryman John Paul Jones, Dohrenwend refuses to haul down the flag, which in his case proclaims 'social stress'; however, the weight of evidence suggests that this ship is slowly sinking. What does seem to be generally agreed is that recent environmentally-induced stress is far less of a risk factor in schizophrenia than in major depression.

Expressed emotion inevitably causes some well-