

sustains  $r$  somatic mutations, the disease is initiated in that individual. After birth mutations are assumed to take place randomly at rate  $k$ , and the latent period  $\lambda$  intervenes between the initiation of the disease and diagnosis or death. It is not, of course, possible to observe directly  $\lambda$ ,  $n$ ,  $r$ , or  $k$ , in any individual, nor even to determine whether he is a susceptible until the disease occurs. The five parameters must therefore be estimated from observable data, and Burch does this by analysing age-specific incidence rates when these are available, and mortality rates otherwise. It turns out that almost any disease with a mortality which increases fairly smoothly with age, or increases to a maximum and then decreases, can be made to conform to this theory. The fact that the mortality curve fits the model does not necessarily mean, however, that the aetiology is auto-aggressive in Burch's sense. For example, the *current* age-specific mortality curve for lung cancer rises to a maximum and then declines, but this downturn at the older ages is well known to be an artefact, arising from constantly rising rates with age for any cohort, but the rates for successive cohorts themselves increasing, mainly in response to increasing rates of cigarette smoking and other atmospheric pollution. Thus if Burch had applied his method to current lung cancer death rates, he would have obtained estimates of the five parameters which could not represent the true underlying disease process. Few of the diseases classified in this book as auto-aggressive have been studied as extensively as lung cancer, so that alternative explanations are not as easy to advance. The fact that even one disease could be misleadingly analyzed by this method means that the hypothesis should be treated with caution for any other disease of interest.

Burch is obviously aware of this difficulty. To quote 'If a disease is auto-aggressive in aetiology, then age-sex-specific initiation rates should conform—the converse of course does not necessarily follow'. 'Although I first derived these conclusions from a theoretical analysis of some unexpectedly simple features in the age-distributions of auto-aggressive disease, I subsequently fortified them by a more direct argument based upon independent biological considerations.' These considerations are not clearly expressed in the context of the psychological diseases of most interest to the readers of this *Journal*. Until predictions from this theory have been verified by further observation or experiment, the auto-aggressive theory will not be able to stand alongside relativity theory as one of the great unifying concepts of our time. At this stage, one feels that the case is not proven, but it may possibly be right. It may be absolutely right for a few diseases. Equally it may not be.

Despite the inconclusive state of this theory, the book should be seriously considered by anyone wishing to study this all-embracing approach by a wide-ranging, versatile, convinced and almost convincing author.

DAVID NEWELL.

### SANSKRIT TO TADPOLES

#### **Residential Treatment for Child Mental Health.**

By GABRIEL D'AMATO. Springfield, Illinois: Charles C. Thomas. 1969. Pp. 186. Price \$8.00.

A book on this topic would be timely indeed for the increasing number of consultants who are becoming involved in setting up new services either directly or administratively. The frontispiece promises well—a diagram of integrated services we would all like to have; based round an in-patient unit sited in the community are a day hospital, special schools and grouped foster homes, all sharing some facilities and supporting services. These are described in pages 69, 90–98 and 117 respectively. A cost analysis for 1966, given in an appendix, demonstrates a very high per capita cost of in-patient care which may be six times more than the cost of day patient care.

From encyclopaedic reading, the author makes some important philosophical points about the treatment of children. Institutionalization should be automatically questioned, and a child should never be admitted without plans anticipating his discharge. Residential care can only succeed if based on understanding of the needs and reactions of children in general. Separate chapters discuss fully if diffusely: the paradoxical combination in children of omnipotence and helplessness which can lead adults to take such disparate views of children and their care—'critical determinants of (good?) ego development'—four basic needs (Potter 1963) to be fulfilled for the child: (1) to be, (2) to belong, (3) to get (own), (4) to beget (create)—families creating problems and how to provide an effective substitute.

In conclusion the author questions the distinction between the mentally retarded and the mentally ill which denies services to children below a certain I.Q. He also questions the segregation of children with specific handicaps, which may lead to destructive competition between vying groups and artificial divisions within families and the community. Despite these and many other tantalizing snippets of facts and theory with quotations from such varied sources as Muller (1887) on the Sanskrit concepts of mind, and Gudernatsch (1912) on Tadpole metamorphosis, I fear only the most dedicated will

feel it worthwhile to force a path through this jungle of unpruned verbiage. This book cannot be written off, but one could wish it were re-written. My final diagnosis is—encyclopaedic reading—bursting ideas—hurried translation to second language—poured into dictaphone and shaken up—inadequate editing and proof reading—result like the briar patch: only Brer Rabbit happy there, no use to us foxes!

CHRISTOPHER J. WARDLE.

### A BALANCE

**The Psychiatric Examination.** By IAN STEVENSON. London: J. and A. Churchill Ltd. 1969. Pp. 234. Price 60s.

Professor Stevenson, of the University of Virginia School of Medicine, has prepared this book to help students learn the technique of examining the mental state and to guide them in their diagnostic interpretation of the data. He has aimed at a balance between the rigidity of Kraepelinian concepts and the anarchy of abandoning all attempts at the categorization of mental illness. There can be little doubt left, after the recent collaborative U.S. and U.K. diagnostic studies and other investigations, that our interview techniques need improved standardization. One hopes that the Glossary of Mental Disorders prepared for use with the International Classification of Disease will reduce some of the confusion. To what extent will Professor Stevenson's book assist the doctor in training?

The level of discussion in the book is variable. The introduction contains a critical review of the reliability and validity of the psychiatric examination, suitable for the post-graduate student. A later chapter contains comments on the need for tact with patients and illustrations of interview techniques more suitable for the undergraduate student being introduced to clinical work. Although the author defines some of the psychiatric terms used, the need for a definition is not always met. For example, under 'illusions' the text is mainly confined to the misperception of the identity of others and to hypochondriacal sensations. Some defining statements would not be wholly acceptable to many psychiatrists; e.g. 'By hysteria is meant a physical disability the immediate causation of which is an idea in the mind of the patient'.

Such criticisms, however, are outweighed by the over-all value of this book. The author has drawn on his experience in the field to make a sensible choice of items of clinical value; without such selection it would have become unwieldy. Any trainee

in psychiatry, especially one who does not obtain the desired degree of supervision in making a clinical evaluation of his patients, will find many shrewd observations and useful brief reviews within these pages. At least he will be discouraged from the facile view that one descriptive cliché makes a diagnosis.

JOHN HINTON.

### SLEEP, CONSCIOUSNESS, and DREAMS

**Rêve et Conscience.** Edited by PIERRE WERTHEIMER. Paris. Presses Universitaire de France. 1968. Price 30F.

This book of 292 pages contains a series of articles divided in five main portions. Although the headings are fairly clearly stated in each one of the parts, there is a certain amount of overlapping both in terms of concepts and in terms of interpretation of experimental evidence.

In the first portion, the neurophysiological aspects of sleep are discussed in various ways, by Benoit, D. Jouvet-Mounier, Brebbia and Altshuler.

Frederick Snyder discusses various hypotheses on the contribution of sleep with rapid eye movements to the survival of mammals; the evidence presented is, however, only in relation to work on the opossum. Kostandov discusses physiological mechanisms of the reaction to 'subconscious' stimuli. Monakhov deals with the phenomenon of spatial synchronization during sleep and in some psychopathological states. Each of these authors concludes that it will be necessary to study more deeply the problems that they have approached. No attempt is made to give a definition of consciousness, nor of sleep.

In the second part, Nakajima and Thuillier mention their work on the neuropsychopharmacology of hallucinogenic and oneirogenic drugs on rabbits as compared with rats. Tissot and de Ajuria-guerra discuss the modification of paradoxical sleep in man due to some drugs (mostly tranquilizers).

The third portion of the book covers the electroencephalographic aspects, but it is difficult to assess in what way this particular chapter differs from the others. Petre-Quadens discussed the ontogenesis of dreams in new born man, but does not tell us why she believes the new born to be dreaming. Her bibliography does not mention the original work of Samson and of Dreyfus, which is surprising. Bancaud, Talairach and Bordas-Ferrer discuss the cortical-sub-cortical electrical activity of the brain during night sleep in man. This is formidable material based on the study of 120 all-night sleep records carried out on 70 subjects with electrodes