

tudinal) fiber component still remains obscure, the dark staining fibers, interlacing and crossing it at a more or less sharp angle, are all thalamo-cortical projections from the anterior nuclei, coursing around the lateral angle of the ventricle through the callosal radiations to the cingulate cortex and forming their "emanations" in the alba of the gyrus. They travel for some distance with the fibers of the cingulum. Krieg regards the latter as an exclusively association bundle between the limbic and medial supralimbic (paralimbic) cortical areas. The cingulate cortex has no descending projections. In the method of conceptual management, Krieg holds fast to the logic of the morphogenesis of the brain preceding the myelination and follows the time schedule and differential tinctorial characteristics of the thalamo-cortical (ascending) and of the cortical efferent (descending) projections and of the association fibers through the late fetal and early postnatal development of the brain. In the brains of adults, the tinctorial differences of various fiber systems of the hemispheric alba, and the differences in the pattern of the "grain" in different planes of section, guided his explorations also in the normal adult cerebra. The dissection of gross material and the study of the serial sections of the cerebra with circumscribed vascular infarcts and long postictal survival provided important additional avenues to unravel the maze of the fiber systems in the alba of the brain. He derived from these extensive studies a set of general laws governing the organization of the fiber systems of the brain. These are broad laws opening wide horizons for observation and thought. While some of the facts described are generally known, much of Krieg's data are new in substance and original in the mode of their treatment. A few of these observations and the author's interpretation of them are at variance with this reviewer's understanding of them. Such is Krieg's proposition that the medial dorsal nucleus sends in man, as it does in monkeys, a dense projection to the dorsolateral frontal cortex beyond the frontal opercular areas and adersive area 8. The reviewer also does not feel prepared to accept Krieg's conviction that the cingulate cortex "has no projections". The problem of the polarity of conduction in the dark staining fibers of his juxta-caudate system still remains open in this reviewer's opinion.

Except for these reservations, Krieg's text and atlas are replete with original and challenging new data on the structure and organization of the hemispheric alba. The style of the text is brisk and free of circumlocutions. The fundamental information the atlas contains and the beautiful design of this important publication, combined with its being a limited edition, are bound to make the book a "rare book" item of the anatomical literature. The author acknowledges his debt of gratitude to Northwestern University for the support and place to work, with a pointed remark that, "The olympian ideals of our great universities are not always manifest in the expediences practised by the individuals in authority". This reviewer, at least, cannot but agree.

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**Psychopharmacology and aging.** — C. Eisdorder and W. E. Fann (Editors). (Plenum, New York, 1973, 253 p., \$12.50).

The proceedings of a symposium held at Duke University in May, 1972 on this subject are summarized in this monograph. This is a most timely and important area of biology. The book is Vol. 6 of a series in *Advances in Behavioral Biology*. A distinguished panel of 35 scientists representing various basic and clinical areas have contributed. The book is organized into 3 main sections: (1) Bases of a psychopharmacology for aging; (2) Complications of drug use; and (3) Issues in clinical management of drugs. The first section has a primary neurochemical orientation with contributions on the brain biogenic amines, monoamine oxidase, cyclic AMP, a pituitary factor inhibiting thyroid and interactions of learning and memory with age.

The second section is concerned with dyskinesia in aging, pharmacological attempts to manage tardive dyskinesia, affect changes with L-DOPA, abuse potential of mild analgesics and clinical problems of drug treatment of the elderly. The third section is mainly clinical and covers a survey of drug effects upon cognitive function, memory loss and its possible relationship to chromosome changes, multiple system interactions, responses to psychotropic drugs, emotional responses, anti-anxiety agents, patient management, psychoses, paranoid syndromes, affective disorders and uses of antidepressants and electroshock. Each paper is written by an outstanding and well-known investigator.

A volume such as this is certainly welcome. The book covers a wide spectrum of drugs for the aged. If there are any criticisms it is that one would like to see even more, especially a detailed discussion of the electroencephalographic and sleep disorders of the aged and possible methods of treatment. The book is of value to electroencephalographers only as background material. It is recommended that all medical libraries obtain this volume as well as those especially involved in research in this area. Hopefully, this monograph will encourage others to promote further studies of brain changes in the aged from a neurophysiological and further neurochemical point of view.

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**Methods in psychobiology, Vol. 1.**—R. D. Myers (Ed.). (Academic Press Inc., London, 1971, 376 p., ill., £6.00).

This very useful book is the work of 12 experienced authors who participated, singly or in pairs, in the writing of its ten chapters. It contributes significantly to the gradual closing of the gap which has existed since long ago between our knowledge of brain activity on the one hand and of the manifestations of the individual's behaviour on the other, *i.e.*, between neurophysiology and behaviouristic psychology. The book aids the reader to a more profound understanding of the brain-behaviour relations and offers a number of practical instructions and advices.

As seen from the headings of individual chapters ("Use of stereotaxic technique"; "Recording changes in electrical