as a psychologist and was not concerned at that time with the potential of this experimental work in terms of applied physiology.

Dr. Young keeps in step with other writers in not crediting Broca with the concept of cerebral localization: 'neither the conception of a faculty of articulate language nor its localization in the frontal lobes was novel', he writes, with a reference to Bouillaud's 1825 case and his subsequent work. Broca's role, he argues, was to demonstrate localization when scientists were ready to take the idea seriously; and he questions, as others have done, the validity of the evidence submitted in his famous first case.

Herbert Spencer is praised for introducing evolutionary biology into psychology—and in passing one must respect a man who, in those exciting late 1840's abandoned a career as a railway engineer in order to become a writer. Today he might be called a sociologist, but paradoxically so liberal in his insistence on no hindrance to complete freedom of will that he would be regarded as ultra-right wing in his opposition to any form of state providence. His views on psychology, we are told, owed something to George Henry Lewes and to John Stuart Mill. How much Darwin owed to Spencer and how much Spencer owed to Darwin can be divined from a study of this book. The one was initially and more especially concerned with the evolution of the body, the other with that of the mind. Hughlings Jackson wrote of his 'vast indebtedness' to Spencer, and the author shows how the latter's evolutionary associationism dominated Jackson's career as a pioneer neurologist. Less is made of the influence of Thomas Laycock with whom he had worked in York. Jackson is seen as the parallel of Bain in that almost single-handedly he gave his discipline 'an identity apart from its parent sciences'.

From this fascinating study one learns how slowly the cerebral cortex came to be accepted as of importance in sensory-motor phenomena. Indeed for a long while even Jackson believed that the corpus striatum was the highest part of the motor system and that it was here that speech and limb movement were represented, and only in 1870 did he admit that the grey matter of the convolutions could be involved in severe cases of epilepsy. Four years later Betz described the motor cells which bear his name, but not until 1890 was it accepted (in Foster's textbook) that the corticospinal tracts merely pass through the corpus striatum. But clinicians like Broca and Jackson have always been dependent upon the chance finding of a reasonably discrete pathological lesion for their attempts at localizing brain function, whereas neurophysiologists are able to stimulate at will.

It is common knowledge that Fritsch and Hitzig first elicited muscular movements by stimulating electrically the cerebral cortex of a dog. They noted five separate centres, and that was in 1870. Three years later Ferrier, working at the West Riding Asylum at Wakefield at the invitation of Dr. (later Sir) James Crichton-Browne, set out to confirm Jackson's theory that localized epilepsy could result from irritation of the cerebral cortex and at the same time confirm the findings of the two German physiologists. He succeeded, and later was able to identify fifteen separate areas for muscular movement in the brain of a monkey. The clinical applications of these important experiments were first explored by Professor (later Sir) William Macewen of Glasgow in 1879, and in 1884 Alexander Hughes Bennett correctly located a subcortical glioma which was removed by Rickman Godlee with Dr. Ferrier in attendance at the Hospital for Epilepsy and Paralysis in Regent's Park (which in 1903 moved to Maida Vale)—not, incidentally, as the author states at the National Hospital, Queen Square, to which Ferrier transferred in 1880. The development of psychology from the days of Gall to those of Ferrier is more complicated than can be indicated in a review, and there are many other characters studied than are here mentioned, but Dr. Young has helped the reader by providing an outline of this progress by way of introduction and a synthesis at the end. There is a carefully selected bibliography. This is clearly the work of a dedicated scholar—a main line from which he and the reader are often tempted to wander in order to explore numerous fascinating branch lines. It is not a book to borrow from a library but rather one for a convenient shelf near one's desk.

W. H. McMenemy.

## HISTORICAL FREUD

**The Letters of Sigmund Freud and Arnold Zweig.** Edited by Ernest L. Freud and translated by Professor and Mrs. W. D. Robson-Scott. London. Hogarth Press. 1970. £2.75. Pp. 190.

Arnold Zweig was born in 1887 in Silesia, and in 1913 made his first mark in literature with the novel *Claudia*. During the First World War he fought as a private in the German army; he became a confirmed pacifist and his war experiences influenced his later writings. He gained international fame with *The Case of Sergeant Grischa* (1928), which was the first of a cycle of war novels including *Education Before Verdun* (1935). On the advent of Hitler he emigrated to Palestine in 1933, but in 1948 he was invited to return to East Germany and was made

President of the East German Academy of Arts and awarded the Lenin Peace Prize from the Soviet Union for his series of anti-war novels. He died in East Berlin, almost totally blind, in 1968.

Since 1927 he had corresponded with Freud, and what started with 'Dear Professor Freud' and 'Your faithful admirer' had become by 1932 'Dear Father Freud' and 'Ever yours'. Similarly, Freud, who started off with 'Dear Mr. Zweig' had by 1932 changed to 'Dear Meister Arnold', and though it was Zweig who initiated the correspondence it was Freud who first used the familiar form of address.

The correspondence had initially been offered in 1955 to Ernest Jones for his biography of Freud, and a fair representation was in fact included, but Zweig always hoped that the whole would appear in book form. The German edition appeared in 1968 only a few months before Zweig's death.

Zweig, throughout his letters, plays the role of a Boswell who is entirely captivated by Freud. This could in part have been due to his neurotic illness, for which from time to time he was given psychoanalytic treatment, though not by Freud. Throughout the correspondence Freud maintains a dignity and a resistance to Zweig's sycophancy which is most creditable and which also contributes to the greater interest of the letters.

There are many aspects discussed, including personal details of both Freud and Zweig, and students will find in them essential material. There are also topics of historical interest, including the impact of National Socialism and anti-Semitism on the Jewish intellectual in Germany and Austria, and in particular on the two important and articulate correspondents. Literary topics abound, and Freud puts forward his arguments for the theory that the Earl of Oxford was the author of the Shakespearean plays and sonnets. Zweig's residence in Palestine encourages Freud to air his views on *Moses and Monotheism*, and in spite of his failing health his letters remain lucid and wise to the end. It was not Arnold Zweig but Stefan Zweig who gave Freud's funeral oration; as far as I can ascertain they were not related though both were closely associated with Freud.

Psychiatrists who may have found the biography of Freud by Jones too detailed will enjoy these letters, which are well-edited and well translated and read easily. The stature of Freud is enhanced, and he comes through as a very wise and cultured person who, though capable of deep feelings, knew that his greatest service to mankind lay in his contribution to psychoanalysis from which he would not be diverted.

The Hogarth Press and the Institute of Psychoanalysis are to be congratulated on this publication.

MYRE SIM.

## A WORK OF SCHOLARSHIP

**The Prognosis of Patients with Epilepsy.** By ERNST A. RODIN. Springfield, Illinois: Charles C. Thomas. 1969. Pp. 445. Price $19.50.

For the clinician engaged in the management of patients with seizure disorders this book is among the most important to have been written in English for at least a decade. In a market dominated by conference reports, broad treatises on narrow problems, and trite *vade mecums* on therapeutics, this is a work of scholarship in an area of great concern to the physician, that of prognosis. The theme is pursued with rigour, both in the review of the literature which forms part 1 and in the research dossier which makes up the second part.

In his review of the literature on prognosis Professor Rodin's general theme is to depress the doctor who takes an over-optimistic view either of his therapeutic prowess or of the natural history of these disorders. This review covers most of the useful sub-classifications of the epilepsies, as well as having sections on surgery, intelligence and mortality. Each section is well summarized; in particular the exposé of Sauer's paper on pyknolepsy (where 3 of 7 cases suffered psychomotor siezures), and Adie's comment in discussion after his 1924 paper that major attacks had occurred in some of his cases where '. . . in fact there seemed to be every gradation from pyknolepsy to ordinary epilepsy', tend to disturb attitudes derived from too slight an acquaintance with original papers. The whole review is perhaps a severe test of the intellectual climate in the field still dominated by a point of view, laudable enough for a while in the education of prejudiced public, that epilepsy does not do much harm while it lasts and usually goes away. Whilst the value of therapeutic optimism is indisputable in the individual case and in public education, therapeutic zeal might be better encouraged by the section on Mortality, which, taken with the results of the Danish study to which it refers and which are now available, confirm the risk to life from the variety of hazards attendant upon the epileptic state.

Since in the first part the book follows the best traditions of theses, purists may be dismayed to find that the investigations in part 2 are not a diligent proof of hypothesis but record a variety of attempts to find meaningful predictors whereby prognosis in a number of areas can be improved. At present in the epilepsies we should be grateful for anything which generates hypotheses. These investigations are also very well summarized and are in agreement with the results from other centres. The finding that in terms of seizure prognosis the EEG behaves