independent structures in the brain, showing different rhythmic activity. The localization of these structures remains still obscure.

However, the author comes to the conclusion that the degenerative process maintains its identity in spite of unequal rates of clinical progression and some structural and topographic histopathological variations. The degenerative process may be related to different factors, innate disposition and unknown cytotoxic effects, but not to vascular changes. Onset is between 20 and 70 years, the duration of the disease varies between 1 month and 6 years; both sexes are equally affected. Familial incidence is present in a minority of cases. This monograph by Kirschbaum is a most competent and complete review of a disease entity and a most valuable reference book for neurologists, psychiatrists and neuropathologists.

R. H. KIRSCHBAUM: Jakob-Creutzfeld Disease. Elsevier, New York 1968. 251 p., 65 fig., 8 tab. KIRSCHBAUM was one of the first authors to describe Jakob-Creutzfeld disease in the twenties. After retiring from his teaching duties at Northwestern University he felt the need to give a full account of what has been described under various names, such as Jakob-Creutzfeldt disease, spastic pseudosclerosis, Heidenhain syndrome, subacute spongiform encephalopathy or McMeneny disease. He has tabulated all the 150 cases verified by autopsy and published between 1920 and 1965. Emphasis is on clinical course and symptomatology as well as changes. Onset is between 20 and 70 years, the duration of the disease varies between 1 month and 6 years; both sexes are equally affected. Familial incidence is present in a minority of cases.

Unfortunately the reader has difficulty in understanding clearly the author's definition of 'paroxysmal dysrhythmia'. In particular it is not clear if he is using this term to include all types of paroxysms, as the title of the book suggests, or if he defines the term more narrowly to include only the hypersynchronous phenomena - e.g. Spike-Wave paroxysms and the so-called 'parenrhythmia', as it seems after reading the summary and casuistics. Two methods are used for analysis: firstly, the reduction to a time function in which only the presence or not-presence of paroxysmal activity remains, as a 'zero or one' function of time. The frequency components of the EEG, well known to EEG specialists, is thus ignored. Secondly, the reduction to a series of individual events, in which the length of the time interval between the beginnings of the paroxysms appears as a variable. By this means the frequency of repetition of the paroxysmal activity can be investigated. In contrast to the repetition spectrum, the 'time function' spectrum may cause difficulty to those readers not familiar with spectrum analysis, who will certainly miss a clear and comprehensive explanation of this special kind of data transformation.

54 EEG samples from 20 cases were investigated, the average recorded time being 14 minutes. Clinical features and EEG are heterogeneous, the only common factor being paroxysmal activity in the EEGs. The author concludes from his study that certain aspects of paroxysmal activity cannot be explained by the hypothesis of one single subcortical pacemaker. He postulates the presence of several functionally independent structures in the brain, showing different rhythmic activity. The localization of these structures remains still obscure.

This is of great importance because it shows that the time structure of electroencephalograms contains interesting information not only in the conventional frequency range, but also in the lower frequencies under 1 cps; this information can only be obtained, however, by the use of modern analytical methods. It is a highly specialised work, not always easy to understand, and thus mainly for the use of EEG specialists. It will also be of interest to those scientists who study various rhythmic phenomena in life.

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of paroxysmal discharges from the caudal trigeminal nucleus. 'The Supranuclear
Structures' are dealt with in chapters on its neuroanatomy, pathophysiology and
electrophysiological experiments as well as a brief summary of psychological aspects.
We find in this part the outstanding electrophysiological and histological data on
pain conduction and origin in thalamic nuclei as intermediate parts of the dif-
ferent cortical and subcortical pain-pathways. The last section gives finally
the summaries of present concepts of 'Causation of Trigeminal Neuralgia' in
three chapters reviewed from different standpoints. This gives a confirmation for
the growing suspicion that trigeminal neuralgia is caused by a combination of pe-
ripheral and central abnormalities along the neuronal structures of the trigeminal sys-
tem. The reviewer would appreciate a more complete bibliography, especially in the
concise summary of possible historic and new-found etiologic factors in chapter 22.
This published record of a symposium belongs to the best of its kind and is highly re-
commended to all those investigating pain syndromes and treating patients with
neuralgia. E. Mattmann, Zurich