

## Preface to the Second Edition

One of the major strides forward in the field of epilepsy in recent years has been a renewed emphasis on its causes. An epileptic seizure, like a headache, is a symptom. It is a symptom furthermore which is known to have numerous different potential causes, but in many cases, these are hidden or obscure (*κρυπτός* *kryptós*, hidden). Our ability to uncover the underlying causes of epilepsy has been greatly enhanced in the last few decades by the advent of medical technologies, notably in neuroimaging, molecular genetics and molecular chemistry. These have allowed many new etiologies and causal factors to be recognized. In the preface of the first edition, we cited the famous statement of Kinnier Wilson that to attempt to list all causes of epilepsy would be an act of supererogation. However, with modern developments, we believe that this view is over-pessimistic, and notwithstanding the conceptual issues that complicate the idea of causation, many of which were first enumerated by Hughlings Jackson (as described in Chapter 1), a listing of causes is now feasible to an extent previously not imagined. The identification of the cause of epilepsy is a key element in patient-centered clinical management, and is now increasingly successfully achieved. Long gone is the time when epilepsy was simply described by the characteristics of the seizure (the seizure type) and hopefully, too, less focus can now be placed on the intellectually sterile activity of rejigging terminologies or classification schemes and more on the pathophysiology of underlying causes. What is attempted in this book is a description of all (or almost all) the known causes of epilepsy in a way which is useful for clinical purposes and which can stimulate efforts to produce cause-specific therapies. We have tried to approach the relationships between epilepsy phenomenology and its specific causes in a manner that is informative for both the epilepsy experts, who need to understand more about the underlying pathophysiology, and for those clinicians who may be familiar with the causative disorders but not with the peculiarities that epilepsy adds to a given medical condition.

As far as we are aware, this is the first, and indeed only, textbook to focus specifically on the causes of epilepsy. It is nine years since the publication of the first edition, and during this time, we have learned a great deal from our experience with the first edition and also from the explosion of new information, especially about the genetic and molecular causes of epilepsy. As a result, this edition is expanded and extensively rewritten. In Section I of this second edition, we have included new chapters on the concept of cause in epilepsy and on the basic

principles of causation in epilepsy. Section II is an entirely new section comprising a series of chapters dealing with the clinical approaches to establishing cause in different situations in clinical practice. Sections III and IV cover the genetic causes, and have been greatly expanded with new chapters reflecting the rapid advances in this field. The sections are divided into the genetic causes of the idiopathic (or 'pure') epilepsies and into those of the genetically based symptomatic epilepsies. Section V comprises chapters on the non-genetic causes of epilepsy (the symptomatic epilepsies) and many of these too have been extensively rewritten, with an emphasis placed on the clinical features and prognosis. In Section VI, we cover the precipitating factors of epileptic seizures, which we consider to be as much a 'cause' of epilepsy as are the underlying conditions, and which emphasise the multifactorial nature of causation in epilepsy. In Section VII, the causes of status epilepticus are described, as these differ in many ways from the causes of other forms of epilepsy.

As with the first edition, the purpose of the book is to be a comprehensive reference work, a catalogue of the known causes of epilepsy, and above all a clinical tool for clinicians caring for patients with epilepsy. The intended audience is both specialists and generalists, and we have asked our contributing authors to follow a predetermined template to provide a concise summary of knowledge about the clinical aspects of the epilepsy in a form that is helpful in both the hospital and outpatient settings.

We are also enormously grateful to Nick Dunton and to Anna Whiting, his successor, the Senior Commissioning Editors at Cambridge University Press. Both have guided the project since its inception with extraordinary skill and expertise, and we are equally grateful to Charlotte Brisley who came to the project in its later stages as content manager and who has worked tirelessly to make it a success. The quality of the book depends on the skill and clarity of the authors of the individual chapters and we have been very fortunate in the high level of expertise and commitment all have brought to the book. We are also very obliged to our colleagues, around the world, who have engaged in stimulating discussions with us, who have shared their ideas and knowledge about the causes of epilepsy and who have guided us in our quest to make this textbook a useful contribution to clinical and experimental work in epilepsy.

**Simon Shorvon, Renzo Guerrini, Steve Schachter  
and Eugen Trinka (editors)**