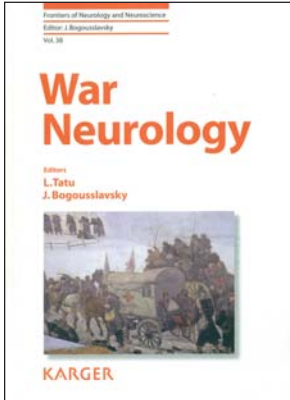


Book Reviews

War Neurology. L. Tatu, J. Bogousslavsky (eds). Karger, Basel, 2016. 243pp, price not mentioned. ISBN 978-3-318-05605-1.



This book disposed of an assertion I made on a beery evening not so long ago. As happens so often among people like us, we were discussing politics. The leader of an extremist outfit had just delivered his angry sound bite on television. He was an onco-surgeon in an earlier avatar. I was sure that no neurologist could hold such extreme views. Neurologists do not promise successful extirpations of disease and with experience we learn to live comfortably with uncertainty and

unacceptable truths. One of the sections in this book, 'Neurology in total war', discusses the sorry record of German neuroscientists in the years before and during the Second World War. It seems difficult to believe, but they were among the intellectual progenitors of the Holocaust.

It is important to understand the zeitgeist as it evolved. Charles Darwin published the *Origin of the species* in 1859 and it now seems a self-evident theory. But Gregor Mendel, father of genetics, was yet to begin counting his cowpeas and the double helix was almost a century in the future. Our knowledge of the genetic basis of the common humanity of all races was still further ahead. At about the same time as the *Origin of the species*, Sir Francis Galton, of phrenology fame, was an active public intellectual. His theory of eugenics was widely shared and initially it meant selective sterilization of those thought unfit to reproduce their presumed defective hereditary qualities. Forced sterilization as eugenics was practised as such in the USA until as late as the 1930s. But well before that, as Europe descended into chaos with the First World War, Germany began developing its own version of hell. In the closing years of what was called the Great War, German neuropsychiatrists (for a long time neurology and psychiatry were a joint specialty) participated in a systematic culling of 'useless eaters'. Almost 72 000 neuropsychiatric patients died in German asylums due to wilful neglect and starvation. In the 15 years following 1918, defeat led to economic and then political consequences for all Germans with the rise of the Nazis. In the early 1920s, involuntary or forced 'euthanasia' had already gained some traction with popular books written about it for the lay public. In 1933, the Nazis made forced sterilization compulsory for epilepsy, schizophrenia, bipolar disease, major brain malformations, 'congenital feeble-mindedness', etc. Over 90 000 individuals were sterilized and with a mortality of 0.5%, 2000 actually died because of the procedure. Neurologists were definitely not reluctant participants. For instance, Hans Berger of EEG fame was an EGOG (Appellate Genetic Health Court) expert.

As Germany moved towards Hitler's 'Total war', the Nazis began to draw in the whole population into their evil enterprise. Few resisted. Almost half of all German doctors became members of the Nazi party. Neurologists started by participating in the eviction of their Jewish colleagues, vying for the vacated

professional positions. As the Second World War began in 1939, covert euthanasia programmes were started. More than 70 000 neuropsychiatric patients (including 5000 children) were killed by 1941. The techniques that were eventually used on a mass scale in the death camps were first tried on these unfortunates. By the end of the war, the death toll on this account alone was 275 000. Neuroscientists enthusiastically harvested pathology material for papers that led to identification of eponymous diseases such as Hallevordern-Spatz. Some so-called scientists went further: designing and carrying out horrendous (and often bizarre) experiments on Jewish and other prisoners in the concentration camps, often to curry favour with their Nazi bosses. They usually worked in the death camps, which were responsible for the extermination of 6 million Jews and lakhs of gypsies, communists, gays, etc. Some news of these horrors trickled out while the war was on but most of it was only laid bare with the Nuremberg trials and the world gasped with revulsion! Was it not possible to foresee the slippery slope that led through starving incurable patients to wilful patient murder to the mass murder of all 'lesser or subhuman beings'? A quote from an inmate on the wall of the Dachau concentration camp museum still haunts me: 'I find it difficult to believe that this is happening to me in the heart of Europe, in the middle of the 20th century.' Like so many others, until they came for him, he had probably seen nothing. As the Israelis say: 'Never forget!'

But this book is not just about evil. War can also bring some redemption. The First World War set the stage for the final maturation of neurosurgery into a distinct specialty. Harvey Cushing, the father of modern neurosurgery classified penetrating head injuries and defined their management. Techniques evolved from the battlefield experience produced a near halving of the mortality rate in craniocerebral trauma. Spinal cord injury (SCI) did not do so well in the First World War with 80% mortality in the first few weeks alone. But by the end of the Second World War, multidisciplinary approaches with improved bladder management, bed sore prevention and neurorehabilitation reduced long-term mortality of SCI to about 25%. More progress was achieved for the paraplegic in the Second World War than for any other kind of casualty.

Motorbikes and young men have always been a lethal combination and in both the world wars, messengers rode full tilt through bad roads and battlefields. Lawrence of Arabia died of a head injury due to a motorcycle accident. Hugh Cairn, a British neurosurgeon was able to study head injuries in those wearing or not wearing helmets and his paper led to compulsory helmet use in both motorcyclists and pillion riders in the British Army from 1941. By 1943, he and Holbourn, a research physicist, were able to examine both victim and helmet in 106 crash investigations and their paper led to better helmet design.

This book also has chapters on war neurology from antiquity but the bulk is based on 20th century experience. There are fascinating accounts of post-traumatic stress disorder down the ages, right down to the NATO's (North Atlantic Treaty Organization) French troops in Afghanistan. Would I recommend this book for a library? Definitely, yes. It is essential reading for anyone interested in the history of the neurosciences. Unfortunately, it is not an easy read. It comes across as a classic example of postbox editing, with disparate and often turgid writing styles

shoehorned into a barely coherent whole. But perhaps a few good speakers could make a wonderful half-day seminar out of it.

ROOP GURSAHANI
Hinduja Clinic
Veer Savarkar Marg
Mahim
Mumbai
Maharashtra
roop_gursahani@hotmail.com