

Thus, Dibattista manages better in his analysis of how much Charcot's work was a determinant in the formation of a neurological taxonomy. The act of denomination—the creation of a concept—is the first and definitive operation of a science. Therefore, the study of the appearance and transformation of fundamental terms of a science is a major moment in its evolution. Without doubt, a history of medical ideas is the most fruitful approach for a historian trained firstly as a medical doctor. Dibattista astutely chose to privilege this stance rather than a biographical or sociological one, though all these approaches are used to some extent in this work.

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John M S Pearce, *Fragments of neurological history*, London, Imperial College Press, 2003, pp. xvii, 633, illus., £46.00 (hardback 1-86094-338-1).

Neurologists, neurosurgeons and neuroscientists rank high by numbers among medical historians. They have not lacked quality either. Harvey Cushing's biography of Osler is a great book and JF Fulton's omnivorous historical studies pay revisiting. The neurologically inclined have obviously been at the forefront of chronicling the investigation of the nervous system and its disorders. In this respect they have often favoured anthologies and Edwin Clarke (a former neurologist) and Charles O'Malley's *The human brain and spinal cord* (1968) is a milestone for such enquiries. John M S Pearce has travelled Clarke and O'Malley's route although he (or his publisher) has not learned as much as might be gleaned from such a meticulous example.

Pearce served on the editorial board of the *Journal of Neurology, Neurosurgery and Psychiatry*, which had a "space-fillers" device to pack incomplete columns. This work is an extension of those "idiosyncratic" entries (p. xiii). The volume has 135 sections in which lengthy extracts from neurological texts are woven into a positivist text (positivist as in the sense of being concerned with identifying the

true discoverer of such and such a fact—insulin for example, p. 510). For the historically unaware but hungry neurologist the readings from Hippocrates, Vesalius and Hughlings Jackson may catch the imagination. For the student of the obscure, the book's merits are its introduction to the background of a cornucopia of neurological arcana including heterochromia iridis or Hoffmann and Tinel's sign of formication (good opportunity here for the mischievous typesetter). From the connoisseur of referencing and the footnote this book is best kept hidden. The punctiliousness associated with neurologists cannot be found in titles which, for example, are sometimes italicized sometimes not, sometime capitalized sometimes not. At times the referencing system has the challenge of a crossword. For those who consider immaculate footnoting to be the bibliographical equivalent of a neurological sign, beware what the text might hold. The publisher has a long way to go to live up to the name of the distinguished college in whose name this book is printed.

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Nicholas L Tilney, *Transplant: from myth to reality*, New Haven and London, Yale University Press, 2003, pp. xii, 320, illus., £19.95 (hardback 0-300-09963-0).

The transplantation of organs came close to being one of medicine's cruellest and most spectacular failures. Throughout the ten "Black Years" that followed the first and famed transplant between the Herrick twins in 1954 at Boston's Brigham Hospital, there was no realistic prospect of extending its scope beyond the genetically identical by deceiving the recipient's immune system into accepting the transplanted organ. Indeed during this period the average survival of several hundred experimentally transplanted dogs was a mere eighteen days—so it beggars belief that anyone should have even contemplated the procedure in humans. But they did, and the patient died. The

physician in charge of the transplant ward at the Brigham Hospital eventually resigned on the grounds that he had “officiated at enough murders”.

Nicholas Tilney portrays these ethically dubious origins of transplantation as intrinsic to the whole enterprise rather than some regrettable prelude to later success. The same callousness in pursuit of experimental therapies is to be found in the surgical machismo and circus trappings of the first heart transplant that *Time* magazine correctly described as being “more or less equivalent to a death sentence”. It is apparent in the “ethical conundrum” of the first cross-species transplant in 1984 where Baby Fae, born prematurely and weighing just over a pound, was given a baboon’s heart—only to die inevitably a week later. And so on.

Tilney is himself a distinguished transplant surgeon and is thus uniquely well placed to observe this Janus-faced nature of transplantation. He first became involved at the time of the, in retrospect, defining moment of the specialty in 1963 (of which more in a moment). His career prospered and for twenty years he ran the transplant research unit at the Brigham Hospital. Now in retirement he has written *Transplant*, the first (I was surprised to realize) comprehensive history of his specialty. His intention, he says, is to “reach a general audience interested in scientific ideas and how theoretical concepts are translated into practical reality”.

It is certainly a grand story, one of the grandest in the history of medicine in which, like some Wagnerian opera the action is a disconnected series of subplots that become gradually ever more intertwined. It opens in 1894 with the assassin’s knife that severed the French President’s hepatic vein, inspiring the surgical polymath Alexis Carrell to develop the ingenious blood vessel anastomosis that would make transplantation technically possible. Then almost simultaneously but quite unaware of each other’s existence, the master inventor Willem Koff in Nazi-occupied Holland and the exotic Peter Medawar in war-torn England provided two further essentials of dialysis and an understanding of the immunology of rejection respectively. Surgeon Joseph Murray draws

these threads together in performing the Herrick twins transplant and the subsequent Black decade is only brought to a close by yet another subplot—the miracle workers of post-war medicinal chemistry George Hitchings and Gertrude Elion with their discovery of azathioprine.

The first act closes with the historic meeting in Washington in 1963 when transplant “new boy” Thomas Starzl announced—to the audience’s “utter incredulity”—that he had transplanted thirty-three kidneys in the previous year and that twenty-seven were still alive. The second act sees the extension of the principle of transplantation to the heart, liver, lung and bowel with the vicissitudes already mentioned. Tilney draws on his personal experience to provide many useful insights that are not necessarily formally documented—such as Norman Shumway’s visceral loathing of Christiaan Barnard for so impudently relegating him to second place in the race to perform the first heart transplant.

Finally, Tilney tells us in the third and final act “what happened next”, how and why the intellectual challenge of the pioneering years has come to be replaced by a mood “tempered by overwork, over regulation, micromanagement and dullness of routine”. This closing coda I suspect will be of particular interest to future historians of medicine—a specific example of the more generalized disillusionment that has come to pervade medicine over the last twenty years. Tilney identifies the many factors that might be responsible and is particularly critical of the unhealthy dominating influence of the pharmaceutical industry and the institutional obsession with increased revenues that he claims has provided almost “universal professional discouragement”.

Tilney’s own life encompasses virtually the whole trajectory of this opera from his inauspicious beginnings to closing disillusionment and is thus able, uniquely, to bring the wisdom of personal experience to the interpretation of the events he describes.

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