

BOOK REVIEW

Eponyms of 'romantic science'

Language is the armoury of the human mind; and at once contains the trophies of its past, and the weapons of its future conquests.

Samuel Taylor Coleridge (*Biographia literaria*, XV1, 182)

Professor Douwe Draaisma published *Disturbances of the Mind* in Dutch in 2006. Cambridge University Press has now made it available (Draaisma, 2009a) to English readers by publishing Barbara Fasting's translation. Douwe Draaisma has already enjoyed popular acclaim for his books, which include *Metaphors of Memory* (2001) and *Why life speeds up as you get older* (2004).

The historical essays in *Disturbances of the Mind* cover well-trodden ground, but the style and writing are refreshingly different from most published articles and books relating to these subjects. The topics subsume both classical, organic neurological diseases and neuropsychiatric disorders with a mixture of organic and psychogenic aetiologies. The contents include: Parkinson's disease, Phineas Gage's cranial injury, Broca's area, Jacksonian epilepsy, Alzheimer's disease and Brodmann's areas; as well as the syndromes of Bonnet, Korsakoff, Gilles de la Tourette, Clérambault, Capgras and Asperger.

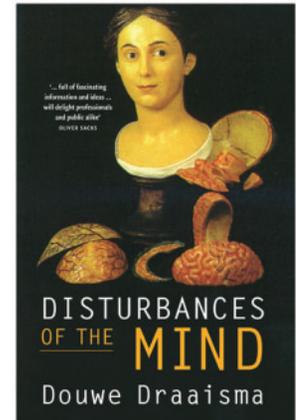
An intriguing book, it not only acquaints us with the tales of how these selected disorders were originally described, but also raises many issues that relate generally to biography, and to the value and limitations of the use of eponyms themselves. The author shrewdly but controversially observes that what happens after a first description is more important than the discovery itself. He glides seamlessly from his well-referenced eponymous descriptions to the subsequent developments in each topic, outlining more modern research data and opinions, and often conjecturing about the cause of the disorder. Draaisma does not refrain from controversy. He enlivens these yarns, and provides many fascinating, valuable clinical diversions and reference sources (displayed as footnotes) that, although not comprehensive, are nonetheless valuable because not all are widely known.

The flavour of the book is revealed in the tension between the older descriptive and the modern technical biographies, which he discussed in another publication (Draaisma, 2009b). There, Draaisma recalled that when Oliver Sacks published *Awakenings* in 1973, he received a letter from the illustrious Russian neuropsychologist Alexander Luria, who complimented Sacks's book, praising it as a fine specimen of 'romantic science'.

DISTURBANCES OF THE MIND,

By Douwe Draaisma,
Translated by Barbara Fasting
2009.

Cambridge: Cambridge
University Press
ISBN-13: 978-0-5215-0966-4,
Price: £16.99/\$25.99.



Luria commented: 'today's medicine is being dominated by "classical" science, in which clinical observation and convincing case histories have become something of a lost art'. The dichotomy between classical and romantic science reappeared in Luria's autobiography, *The Making of Mind*, published posthumously in 1979. The notion of romantic science sets the tone for 12 eponymous disorders now described in *Disturbances of the Mind*. This genre emphasizes the importance of observation and description, rather than laboratory experimentation. The selective contents of Draaisma's book, if sometimes prone to repetitiveness, are mostly of high quality. There are however, a few quibbles.

In the chapter on the well-known tale of Phineas Gage, the author engagingly tells the story with accuracy and well-sourced contemporary accounts. But, he then proceeds to a lengthy rant against the first section of Antonio Damasio's well-publicised book, which, in the setting of the Phineas Gage frontal lobe syndrome, seeks to contradict Rene Descartes' theory of mind–body dualism. He accuses Damasio of having 'jazzed-up Gage's accident and his subsequent adventures'. Damasio explains that emotion is inextricably linked to reason in a mind that is inseparable from its physical body; and, in turn, this reacts with the environment as an ensemble. Draaisma asserts that Descartes' *cogito ergo sum* 'expresses the opposite of Damasio's own view'. Though some share Draaisma's critique of Damasio's 'Gage matrix' (Spence, 1995), this gratuitous digression is actually longer than his main theme.

Similarly, in a lucid and well-referenced account of Paul Broca's aphemia (aphasia) and the much aired Broca–Dax controversy, he

digresses, explaining one of Broca's other works. Broca tried to link brain size with education, nationality and intelligence by measuring precisely human skulls from the 12th, 18th and 19th centuries in an attempt to show that the brain has expanded over this period of time. Draaisma is at times inclined to melodrama and to peculiar, though arresting, turns of phrase. He titles this chapter 'The Celestine prophecy: Broca's area'. Yet the Celestine monastery turns out to be the start of Broca's studies of skull sizes, and very little to do with Broca's area or aphasia.

The chapter titled 'Siberian brandy: Korsakoff syndrome' describes well the memory disturbances and confabulation, but in mentioning several earlier descriptions he gives those of Robert Hooke, Marius D'Assigny and Robert Lawson, and only in the last chapter mentions that Sergei Korsakoff himself gave priority to the Swedish physician Magnus Huss (Huss, 1849). Also, he fails to mention that 60 years earlier, in 1822, James Jackson had described a similar syndrome, as had Charles Gayet, a French ophthalmologist and Samuel Wilks in his 1868 account of the characteristic mental symptoms in alcoholic paraplegia. Although they can occur in isolation, the symptoms of Korsakoff's syndrome complicate no less than 80% of patients with Wernicke's encephalopathy (Victor *et al.*, 1989). But, Draaisma concludes that the Korsakoff's syndrome and Wernicke's encephalopathy are favoured as independent conditions. He is imprecise in describing the visual problems of Wernicke's syndrome as 'double vision and eye tremors' and unnecessarily vague when he characterizes the associated ataxia as 'an uncertain gait'. It would be petty to dwell on or enumerate other minor inaccuracies and the odd example of careless editing, but in the chapter on Alzheimer's disease, Draaisma claims Bernhard von Gudden gave his name to a neurological innovation, the microtome in 1875, but he ignores the fact that it was devised by the surgeon, Benedikt Stilling (Stilling and Wollach, 1842).

It is difficult for even a distinguished psychologist to reflect medically trained experience of the spectrum of neurosciences; yet when dealing with certain aspects of neuropsychiatry this is necessary if the essential nature of a particular condition is to be realized. Possibly with the lay reader in mind, certain clinical signs and much of the vital pathogenesis are sparsely treated in many chapters. The role of gene abnormalities likewise escapes attention. Many common clinical diagnoses such as attention-deficit hyperactivity disorder are defined not by aetiology, but by the resultant disordered behaviour and cognitive state. This is especially relevant to autistic disorders such as Asperger's syndrome (Abrahams and Geschwind, 2010). However, Draaisma's lucid narratives of the conditions described partly compensate for these omissions. The approach is expansive. The author skilfully illuminates not only the eponymous discoverer and his own history, but also the psychological features of the condition described, and its effects on the lives of the patients and the careers of the discoverers. This will appeal to physicians and the lay reader alike.

The chapter on Jacksonian epilepsy gives a delightful summary of Jackson's early life and studies on focal epilepsy; it recounts attractively the plight of his patient 'Dr Z' (also known as 'Quarens') and his other patients, their dreamy states and Jackson's ideas about the source of epilepsy in relation to his

hierarchical levels and the Spencerian notion of evolution and dissolution in the nervous system. But on the concept of hierarchies, Draaisma then asks: 'From whence this obsession with control and command?'. To imply that Jackson was a control freak is to misrepresent a man to whom such motives were of no interest.

Some of the same topics were well covered in a comparable approach by Enoch and Trethowan (1967) in their *Uncommon Psychiatric Syndromes*, which ran to four editions. That collection included the Ganser, Munchausen, Cotard, Ekblom, Othello and Couvade syndromes—not considered by Draaisma; but no selection can be comprehensive and inevitably is a personal choice. Since we have innumerable reference books, reviews, historical notes (Pearce, 2003), dictionaries and discursive essays covering eponymous psychiatric (Bresch, 2002) and neurological (Rose and Bynum, 1982; Koehler *et al.* 2000) illnesses, we may ask, does this book offer anything new?

Biographical eponyms

Draaisma considers several interesting points relevant to the generality of medical eponyms and biography. He shows how the history of an eponym illustrates the emphasis placed on aspects of an illness in the setting and limitations of the knowledge of its time; he explains the evolution of behavioural science and the various subsequent interpretations placed on the disorder. His narrow selection of topics is of course to some extent personal and arbitrary, but unquestionably leaves the reader wanting more—a sure sign of a talented writer. The message is so smoothly related that it is easy to miss several fascinating but provocative issues relating to eponyms. Eight years ago, Bresch collected 74 psychiatric examples and noted that to write about eponyms is itself controversial. Many do not fit rigid diagnostic classifications. Yet, he says, they are useful heuristic devices that serve to recall the syndrome itself, as well as the person who described it.

The history of many neurological or psychiatric diseases and syndromes shows two stages, dominated by disparate scientific styles. In *An Essay on the Shaking Palsy* (1817), James Parkinson, a London general practitioner, described six patients—the first a sober gardener. He informed us about their lives and work, and he related the symptoms to show how the individual was affected. By contrast, modern papers and monographs on Parkinson's disease relate to collected series of patients, with little focus on the plight or identity of the individual. Similarly, in his paper on nine patients with *maladie des tics* (1885), Georges Gilles de la Tourette described at length the unsightly tics and embarrassing coprolalia of the Marquise de Dampier and eight other patients. Lengthy case histories on the consequences of amnesia, both for the patient and relatives characterize Korsakoff's papers. The disorientation, peculiar mistakes, confusion and despair of Auguste Deter are clearly portrayed in Alzheimer's original description. In recent times, Draaisma tells us that articles in medical journals deal with diseases, not patients: a serious but largely justified admonition.

Draaisma persuasively illustrates how observations, ideas and inventiveness can be stimulating, sometimes inspiring, especially when we consider the information yielded by modern investigative

tools that were not available to past researchers; as well as the value of the small series, often of one patient, described before the arrival of modern, multicentre, double-blind, randomized control trials.

When considering aetiology, those who observed and described apparently new diseases before the concepts of the 20th century were often compelled to be speculative, philosophical or even mystical. With the exercise of only a little imagination, we can appreciate the intelligent powers of observation and, as Draaisma emphasizes, the humanity displayed by these early doctors. Even before the mainly 19th-century figures of *Disturbances of the Mind*, we can sense the tardy sprouting of the shoots of scientific medicine from their anatomical foundations in Andreas Vesalius and Gabriele Fallopio, Rudolph Virchow and Charles Bell, Camillo Golgi and Santiago Ramon y Cajal, and in the clinical pathophysiology of William Harvey, Albrecht von Haller, François Magendie and Claude Bernard to Hermann von Helmholtz, Robert Bentley Todd, John Hughlings Jackson and Charles Sherrington.

The essence of biography is ideas (Pearce, 2007). Eponyms can be seen as one variety of scientific biography. They encapsulate the universal in the particular. Good biographies reassemble the dust and thereby provide a digestible form of teaching that draws the reader into the larger topic. Despite these qualifications, many have questioned the value of biography. There are three principal ingredients in the genre: the life of the man or woman described, the work and results they have achieved and the social climate in which the discoveries were made. Personal eccentricities and notoriety may enliven the recipe; this book shows that they are inextricably linked. The eponyms described in *Disturbances of the Mind* help us to understand both the discoverers and the objects of their discoveries as people, then puts them in the context of lives filled both with achievements and disappointments. They prompt the question: does biography yield anything more important than satisfying the fleeting curiosity of an idle moment? Does it add anything of substance to our knowledge, purpose and understanding? These eponymous biographies may be more likely to inspire or strengthen the scientific curiosity in the young student than in the self-satisfied mature doctor who may think he has seen or done it all; but interestingly, it is more often the mature rather than the young who read biography. Perhaps that reflects the lack of a sense of history inculcated in their students by modern teachers of medicine.

We can learn much from biographical descriptions that describe the development of early techniques: for example, the measurement of blood pressure in a horse's leg by Stephen Hales; the invention of the microscope by Antonie van Leeuwenhoek; the animal experiments of Claude Bernard that uncovered the novel idea of the *milieu intérieur*; and Stilling's invention of microtome, which opened the way to tissue staining and histology. Their historic discoveries affected and directed the methods and understanding of later advances. Of necessity, the lack of sophisticated techniques led to elaborate and detailed clinical histories, which characterize almost all early medical papers; and this, in turn, yielded personal accounts of the patients and their social and family predicaments in a richer vein than is found in texts after

the latter half of the 20th century. This traditional, more personal, approach is welcome and reflected in the style of this book.

Draaisma points out how the eponymous naming of diseases falls victim to the strictures of Stigler's 'Law of eponymy' that claims: 'no scientific discovery is named after its original discoverer' (a dictum apparently also true for Stigler's law). For instance, Alzheimer's discovery, by his own admission, was preceded by that of a colleague in 1898; Jackson credited Louis Francois Bravais with an earlier account of what Jean-Martin Charcot named Jacksonian epilepsy; and Charles Bonnet's syndrome was first recounted by Bonnet's grandfather, Charles Lullin, who had himself experienced the mysterious symptoms. Priority of description is frequently an issue in this text. Most medical historians have on occasion been discomfited by finding out (or worse, having others point out to them) that their claim for one person's original description of a condition is false, since another was published first (Stigler's law, again). A more recent example, Draaisma recalls, occurred when the Russian neurologist Ewa Suscharewa described autism in 1926, some 18 years before Kanner's and Asperger's papers; but not until 1995 was this uncovered by Sula Wolff, the distinguished Edinburgh child psychiatrist.

Another issue is that at times the author seems curiously preoccupied by what he portrays as power politics at work within science; and he expands on this theme in the concluding chapter. Charcot and Emil Kraepelin are cited as examples of senior figures who delighted in conferring eponyms ('in the nature of a royal decree') on their immediate colleagues or pupils, largely for reflected glory. Eponymous syndromes, he says, emerge as a formidable weapon in the battle for influence, money and renown. Likewise, he argues that Hughlings Jackson believed that both brain and society would benefit from '...a deep-rooted Victorian ideal: discipline'—an interpretation that evades my reading of his works.

Another sometimes valid objection to eponyms is the instance of a syndrome, obscure or rare, where the reader's ignorance of the label—for example, the esoteric eponym 'Feingold syndrome'—may be less intelligible than its descriptive but tediously long name, 'microcephaly, mental retardation and tracheoesophageal fistula syndrome'. Hence, part of the indifference of many medical men and women towards the works and even the names of their distinguished ancestors is understandable, if disappointing. But inspiration from past endeavours bears its own fruits. It affords the chance to see the evolution of ideas, how they flourished, evolved and were sometimes destroyed by advancing experiments and subsequent knowledge. It also stimulates and encourages us to follow the examples of eminent forebears.

But herein lies another dilemma of nosology. For instance, should Parkinson's disease be defined strictly in accord with James Parkinson's description of his six patients, or by subsequent knowledge, refinements and advances that have separated many Parkinsonian-like syndromes that show different manifestations and natural history? Should Clérabault's syndrome be diagnosed only when the nine criteria he highlighted are satisfied or should criteria of the more recent literature be used since, in a 1985

literature review, only two or three of 53 published examples of the syndrome fulfilled all Clérambault's criteria? The eponymous author may however, not have insisted on the adoption of all nine criteria in diagnosing his disease. Similar problems of nomenclature obtain *inter alia* in Alzheimer's disease.

What then does this new selection of eponyms contribute? It is, I suppose, a compelling series of stories that offers inspiration; perhaps also, a sense of historical nostalgia, a notion now unfashionable. Yet it is cogent in a romantic exploration of eponyms to remember that the word nostalgia came from the Greek: *νόστος*, *nóstos*, 'returning home' and *άλγος*, *álgos*, 'pain' or 'ache': hence, the sense of history. This can be complicated when some biographers—though not Professor Draaisma—are tempted into shallow hagiography. Perhaps, the most appealing quality of this book is a narrative style given to few authors of scientific works. With his extensive list of earlier books—popular among psychologists, psychiatrists and the general public—this should not occasion surprise. *Disturbances of the Mind* is a beguiling, easy-to-read and informative text. Several of the insights, byways and references were new to me. This work should attract the general reader of the history of medicine as well as neurologists, psychiatrists and students of human behaviour disorders. It conforms to WB Yeats's caveat: 'Think like a wise man but express yourself like the common people.'

The excellent accounts he provides allow us a glimpse into the minds of the discoverers and an appreciation of their intelligent perceptions (at least the equal of our own), often struggling for knowledge in the academic darkness of their times. Fortunately, biographies and the related, much-scorned eponym continue to flourish unabated in large numbers of modern books, essays and papers. If the undoubted romantic fascination of the past is not to everyone's taste, then it may at least save some of us from the admonition of George Santayana (1862–1952), the notable

American philosopher: 'Those who do not learn from history are doomed to repeat it.'

J. M. S Pearce

Advance Access publication June 20, 2010

References

- Abrahams BS, Geschwind DH. Connecting genes to brain in the autism spectrum disorders. *Arch Neurol* 2010; 67: 395–9.
- Bresch D. Beyond Wernicke's: a lexicon of eponyms in psychiatry. *J Neuropsychiatry Clin Neurosci* 2002; 14: 155–60.
- Draaisma D. *Disturbances of the Mind*. Rijksuniversiteit Groningen, The Netherlands, 2006. English translation by Barbara Fasting. Cambridge: Cambridge University Press 2009.
- Draaisma D. Echos, doubles, and delusions: capgras syndrome in science and literature. *Style* 2009b; 43: 429–41.
- Enoch MD, Trethowan W. *Uncommon psychiatric syndromes*. Bristol: John Wright; 1967.
- Huss M. *Chronic alcoholism* (2 parts). University of Stockholm, Stockholm; 1849–51.
- Koehler PJ, Bruyn GW, Pearce JMS. *Neurological eponyms*. New York: Oxford University Press; 2000. p. 194–200.
- Pearce JMS. *Fragments of neurological history*. London: Imperial College Press; 2003.
- Pearce JMS. *Medical biography: a personal view*. *J Med Biogr* 2007; 15: 1–3.
- Rose FC, Bynum WF, editors. *Historical aspects of the neurosciences, a festschrift for Macdonald Critchley*. New York: Raven Press; 1982.
- Spence S. Descartes' error: emotion, reason and the human brain. *Br Med J* 1995; 310: 1213.
- Stilling B, Wollach J. *Investigations of the fine structure of the spinal cord*. University of Leipzig, Leipzig 1842.
- Victor MV, Adams RC, Collins GH. *The Wernicke–Korsakoff syndrome and related neurologic disorders due to alcoholism and malnutrition*. Philadelphia: F.A. Davis; 1989.

More 300 Science synonyms. What are another words for Science? Knowledge, skill, discipline. Full list of synonyms for Science is here. An eponym is a person (real or fictitious) from whom something is said to take its name. The word is back-formed from "eponymous", from the Greek "eponymos" meaning "giving name". Here is a list of eponyms: ShinzÅ Abe, Japanese Prime Minister "Abenomics. Niels Henrik Abel, Norwegian mathematician " Abelian group, Abel's theorem, Abel"Ruffini theorem. Acantha, Greek mythological character " the plant genus Acanthus. Achaemenes, Persian king " Achaemenid dynasty.