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Crichton-Browne's biological psychiatry

Sir James Crichton-Browne (1840–1938) held a uniquely distinguished position in the British psychiatry of his time. Unburdened by false modesty, he called himself 'the doyen of British medical psychology' and, in the narrow sense, he was indeed its most senior practitioner. At the time of his death, he could reflect on almost half a century's service as Lord Chancellor's Visitor and a similar span as a Fellow of the Royal Society.

Yet, today, if he is remembered at all, it is as an early proponent of evolutionary concepts of mental disorder (Crow, 1995). Summarising his decade of research at the West Riding Asylum in the 1870s, Crichton-Browne proposed that in the insane the weight of the brain was reduced, the lateral ventricles were enlarged and the burden of damage fell on the left cerebral hemisphere in the temporal lobe.

By way of explanation he wrote:

> 'It seemed not improbable that the cortical centres which are last organised, which are most highly evolved and voluntary, and which are located on the left side of the brain, might suffer first in insanity. . .' (Crichton-Browne, 1879)

These speculative remarks bring together phrenological views of localisation with an evolutionary narrative and emphasise the importance of asymmetry in neural architecture. These were the three main themes of psychiatric thinking which he revisited throughout the remaining 60 years of his life.

Phrenological psychiatry

Sir James spent much of his childhood in a mental hospital – the Crichton Royal at Dumfries – where his father, W.A.F. Browne (1805–1885), was medical superintendent. In an autobiographical essay written in the months before his death (Crichton-Browne, 1940), his mind ranged back over 90 years with marvellous lucidity and nostalgia for his childhood hospital home. Then his memory seems to reach even further, capturing events which actually took place before he was born. His father's encounter with Dr James Crichton's widow and his subsequent appointment to the Dumfries Asylum, which she endowed, are highlights of this well-rehearsed narrative. Sir James does not dwell, however, on his father's association with George and Andrew Combe, the brothers at the centre of British phrenology in Edinburgh in the 1820s.

The central proposition of phrenology – that the brain is the organ of the mind – seems entirely unremarkable today. In the 1820s, however, it was a provocative notion with worrying implications for devout religious people. In Edinburgh, George Combe attached great importance to drawing the medical profession into an alliance and he pursued this goal with determination and occasional spectacular setbacks.

In 1825, Andrew Combe advanced phrenological ideas in debate at the Royal Medical Society and the furore which followed resulted in the Society issuing writs prohibiting the phrenologists from publishing the proceedings. In 1827, Browne attempted a similar exercise at the leading natural history society – the Plinian Society – and the young Charles Darwin witnessed the ensuing outrage (Walmsley, 1993). In 1828, Combe published his philosophical essay on phrenology, *The Constitution of Man*, but its publication was overshadowed by the Burke and Hare scandal, which engulfed the anatomist Robert Knox and brought philosophical anatomy into disrepute. Inevitably, the numerous opponents of phrenology felt greatly vindicated.

Nevertheless, several gifted medical students, including John Conolly and W.A.F. Browne, joined the phrenology cause on their way into asylum doctoring. After studying under Esquirol, Browne became Scotland's first salaried psychiatrist at Montrose in 1834, moving to Dumfries in 1838. There, we find him lecturing to the newly established Dumfries Phrenological Society in 1841, the year following his son's birth, and his theme was the hereditary nature of insanity.

Evolutionary phrenology

At first sight, Robert Chambers (1802–1871) seems an unlikely convert to phrenology. Chambers was a prosperous Edinburgh printer and publisher well on his way to amassing a fortune (Millhauser, 1959). However, Chambers had been born with polydactyly and had a difficult, solitary childhood brightened by the discovery of the *Encyclopaedia Britannica* in his father's attic.

In the 1830s, Chambers became friendly with Sir Walter Scott and acquired a taste for historical

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narrative as well as for relics, curiosities and artefacts. In Scott, Chambers found an exemplar of anonymous authorship. Chambers suffered from nervous headaches and became acquainted with Andrew Combe; in 1836, he was happy to endorse George Combe's application for the Chair of Logic at Edinburgh in generous terms:

> 'I consider the scheme of mind which results from phrenology . . . the only reasonably complete account of human nature which we possess . . .'. (Combe, 1887)

Chambers was not a scientist. He was a marketing man with a remarkable feel for popular taste. His mind was restless and undisciplined and his thinking showed an excited, didactic quality resulting from the limits of his self-education. Chambers had read Lyell's *Principles of Geology* and had no anxieties about extending its evolutionary view of nature – its narrative quality – from the inorganic to the biological and human spheres.

In 1841, Chambers moved to St Andrews, where, over 3 years, he laboured in isolation to produce an account of cosmic evolution. Because of his business links to the Church of Scotland, Chambers decided to publish the book anonymously and only a tiny group knew of its authorship. The work appeared in 1844 under the title *Vestiges of the Natural History of Creation* (Chambers, 1844).

As an entrepreneur, Chambers had hoped to create a stir but the results exceeded his wildest expectations. Darwin pored over a copy in the British Museum, setting aside his other reading. An obscure young surveyor called Alfred Russel Wallace read it and resolved to find a scientific mechanism underpinning evolution. Prince Albert read it aloud to Queen Victoria.

The *Vestiges* caused a public sensation and its presentation of geological epochs in the form of a stratified narrative prepared the public mind for the scientific notions of evolution that Darwin later presented. Many assumed the work to be George Combe's because of its phrenological references. It ran through 11 editions from 1844 to 1860 and contributed a powerful and local influence to the atmosphere in which Crichton-Browne grew up.

Nervous asymmetry

For the phrenologists, the brain was a symmetrical structure. In his lectures, Combe wrote:

> 'There is general correspondence between the parts on the opposite sides of the brain but not an exact symmetry. The symmetry is as great as between corresponding parts in any part of the body, as between the blood vessels of the left and right arms for instance or between the muscles of the two opposite sides. On talking over the matter with Dr Conolly, he remarked that as the convolutions are nothing but folds and as the folding was merely for the sake of packing, a little difference in the folding probably has no influence on the cerebral functions.' (Combe, 1889).

In 1860, Robert Chambers persuaded Huxley to debate evolution with the Bishop of Oxford and was thus responsible for one of the great set pieces of Victorian scientific theatre. In the same year, Crichton-Browne made his publishing debut with a remarkably assured survey of the psychiatric disorders of childhood (Crichton-Browne, 1860). No doubt his father had guided him into this fruitful area but another influence was also at work: his father's friend, Thomas Laycock, who had before his appointment to the Chair of Medicine at Edinburgh taught Hughlings Jackson at York. Laycock's notions of cerebral reflexes and unconscious cerebration provided timely support for scientific psychiatry after the demise of phrenology.

Crichton-Browne qualified in 1861, the year in which Broca published his paper on the speech centres in the brain. Hughlings Jackson was quick to take this up and disseminate the concept of asymmetrical cerebral functions in the English-speaking neurological world. As Crichton-Browne went through his asylum apprenticeship at Exeter, Derby and Newcastle, he absorbed the ideas of asymmetrical functions unknown in species other than man and consonant with the elaboration of language. As the century wore on, Crichton-Browne came to regard this cerebral asymmetry as a central human evolutionary achievement and he predicted that with insanity, the phenomenon of cerebral dominance would be blurred or even reversed (Crichton-Browne, 1907).

These were the ideas which fired the research at Wakefield, where Crichton-Browne was appointed physician superintendent in 1868 in preference to Thomas Clouston. As well as supervising hundreds of post-mortem examinations, Crichton-Browne corresponded with Darwin, providing material for *The Expression of the Emotions in Man and Animals*, published in 1872. Also, he collaborated with Hughlings Jackson in preparing the celebrated *West Riding Asylum Reports* which developed into the journal *Brain* from 1878.

Like the profession as a whole, however, Crichton-Browne could not sustain the effort. His correspondence referred to the burdens of his responsibilities and his indifferent health (Neve & Turner, 1995). After 10 years, he welcomed the opportunity of promotion, becoming Lord Chancellor's Visitor in 1878, just as his father had become a Scottish Lunacy Commissioner some 20 years earlier.

Two late lectures

Crichton-Browne served as Lord Chancellor's Visitor until 1922. Two years before retirement, he delivered the first Maudsley lecture to the Royal Medico-Psychological Association (RMPA) (Crichton-Browne, 1920). He recalled the optimistic and energetic Henry Maudsley with whom he had been friendly in the 1860s. With some feeling, he contrasted the morose and reclusive Maudsley of later years and went on to outline favourable outcomes in cases of insanity.

Four years later, Crichton-Browne delivered the second Ramsay Henderson Lecture in Edinburgh (Crichton-Browne, 1924). These lectures were endowed to commemorate the work of the phrenologists and the first lecture by the anatomist Elliot Smith, *The Old and the New Phrenologists*, drew parallels between the

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phrenological ideas of localised brain organs and emerging concepts of cerebral localisation.

Crichton-Browne's title, *The Story of the Brain*, nailed his narrative colours to the mast: the complexities of brain structure were the evidence of its lengthy evolutionary history and development. He paid tribute to George Combe, comparing him to Robert Chambers and Charles Darwin. He introduced his father W.A.F. Browne as 'a phrenologist of the old school' and gave a wide-ranging account of neurological psychiatry with emphasis on the discovery of functional asymmetry in the second half of the 19th century.

Conclusion

Sir James Crichton-Browne was not prominently linked with the Colleges of Physicians, did not occupy a senior academic position, endowed no lectures or institutions, left no textbook of psychiatry and was 'owned' neither by England nor Scotland.

Yet in his very long life and career, there is conspicuous lineage between early asylum medicine and contemporary ideas of the cerebral basis of psychotic disorder. Renewed study of his life and many contributions, perhaps starting with his links to Charles Darwin and Hughlings Jackson would throw new light on the origins of evolutionary psychiatry.

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Service innovations: second opinions in child and adolescent psychiatry

AIMS AND METHODS

To devise a protocol, reflecting best practice, for obtaining second opinions in child and adolescent psychiatry through discussion with consultants in child and adolescent psychiatry within the Yorkshire region at their quarterly meetings.

RESULTS

The major pressure for second opinions falls upon the Academic Unit of Child and Adolescent Mental Health and on the in-patient units. Other consultants who are considered to have specialist expertise in certain areas may also receive referrals for second opinions. Both consultants requesting and offering second opinions considered a protocol for obtaining them would be helpful to their practice.

CLINICAL IMPLICATIONS

An agreed protocol between consultants in child and adolescent psychiatry within a region ensures that young people with complex problems have access to second opinions on their diagnosis and management by consultants who can be recommended to referrers by other consultants. The network of consultants ensures such opinions are not requested excessively and that 'rogue' opinions without therapeutic follow-up are avoided.

Second opinions are every person's right, although there are not the resources within the NHS to provide them on a large scale. As with all health care delivery within the NHS, methods have to be found to restrict availability to those who might really benefit. The General Medical Council (2001) only refers obliquely to second opinions by pointing out that, in providing good clinical care, doctors must 'be willing to consult colleagues'. Similarly, the Royal College of Psychiatrists' *Good Psychiatric Practice 2000* (2000) makes no reference to second opinions, only offering guidance on 'referring patients'. *The Consultant Handbook* (Central Consultants and Specialists Committee, 2000) does not refer to second opinions. The absence of guidance means that those who request and provide second opinions must devise a *modus operandi*. The child and adolescent psychiatrists within the Yorkshire region used their quarterly meetings to develop a protocol for accepting requests for second opinions, the principles of which are described here.

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