

Scientific surgeon of the Enlightenment or ‘plagiarist in everything’: a reappraisal of Benjamin Bell (1749–1806)

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ABSTRACT The Edinburgh surgeon Benjamin Bell has been regarded as a scientific thinker in the Enlightenment tradition, despite being accused during his lifetime of both plagiarism and a failure to be innovative. Yet subsequent historical accounts regard him much more favourably. A review of his life and work discusses possible explanations for this apparent lack of concordance.

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INTRODUCTION

Benjamin Bell is commonly described as ‘the father of the Edinburgh school of surgery’^{1,2} or ‘the first of the Edinburgh scientific surgeons’.^{3–5} Are these descriptions justified? His magnum opus, *A system of surgery*, was heavily criticised by contemporaries for its lack of originality, with one detractor describing him as ‘a plagiarist in every thing’.⁶ Yet a widely quoted and laudatory review of this work and a flattering biography, both written by Bell’s grandson, have together formed the basis of many subsequent historical perspectives.⁷ This article examines Bell’s background, aims to assess the influence of *A system of surgery* and reviews his published writings, to establish whether they demonstrate features that would confirm him as a scientific surgeon, and whether the above descriptions are appropriate.

EARLY LIFE AND SURGICAL TRAINING

Benjamin Bell (Figure 1) was born in Dumfries on 6 September 1749, the eldest child of George Bell, who farmed at Woodhouselees, a mile south of the village of Canonbie in Dumfriesshire. In addition to farming, George Bell was involved in a series of business ventures that met with mixed success. This background of modest wealth was to prove important for his son Benjamin in later life, allowing him to visit surgeons in London and Paris and enabling him to take time away from his surgical practice to write a major textbook. The family tradition in agriculture was to re-emerge towards the end of his life.

After attending Dumfries Grammar School, Bell was apprenticed to James Hill, a local surgeon. In 1766 he began attending lectures at the Edinburgh Medical



FIGURE 1 Benjamin Bell c. 1790. Portrait by Sir Henry Raeburn. (With kind permission of Bourne Fine Art, Edinburgh.)

School, where his teachers included some of the most innovative and inspiring of their day, such as Alexander Monro secundus (anatomy), John Hope (botany), Joseph Black (chemistry), William Cullen (institutes of medicine) and John Gregory (physic). In November 1767 Bell was appointed dresser in the surgical wards of the Edinburgh Royal Infirmary. He was clearly ambitious for, the following year, he wrote to his father: ‘I am very vexed that I should have omitted letting you know the names

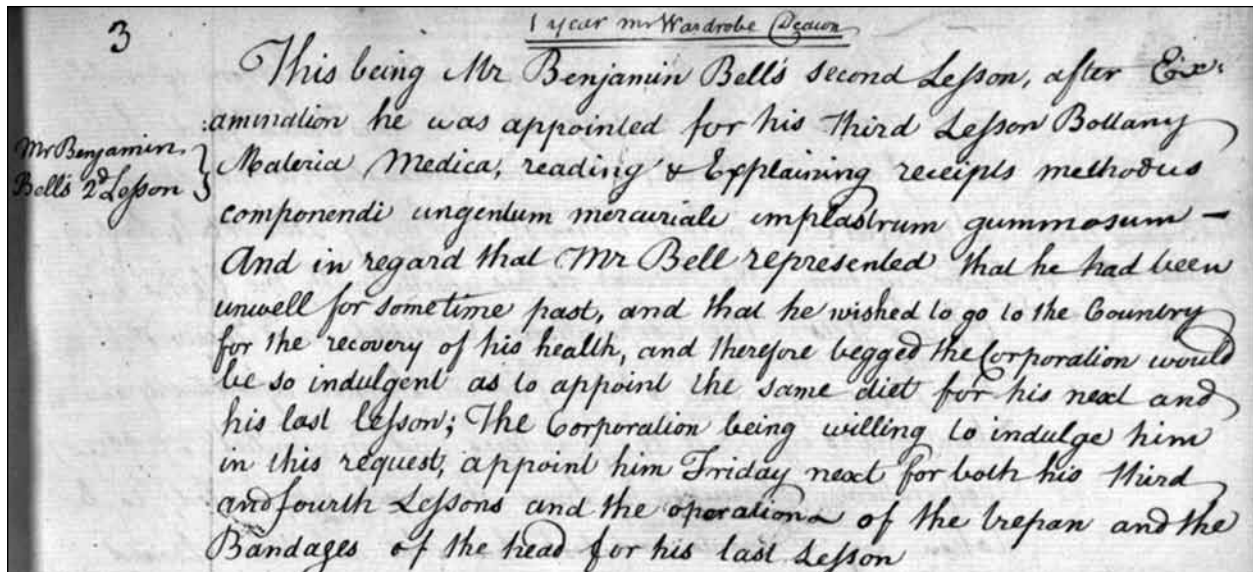


FIGURE 2 Minutes of the Incorporation of Surgeons of Edinburgh dated 1 April 1771. Bell had passed his second lesson and, having asked for his next two lessons to be taken together, was given subjects for these. For his third lesson he was set topics in botany, materia medica and the reading and interpretation of ‘receipts’ or prescriptions, a reminder that his qualification would be as a surgeon-apothecary. His fourth and final lesson was on ‘the operation of the trepan’ and head bandaging. (With kind permission of the Royal College of Surgeons of Edinburgh.)

of the persons who have the power of nominating of the clerks for the Infirmary.’⁷ Bell achieved that ambition in 1769 when he was appointed surgeons’ clerk, a post which he held for two years.

In 1770 he was elected a freeman surgeon-apothecary of the Incorporation of Surgeons of Edinburgh after passing the necessary examination. At that time the examination was held in four parts (or ‘lessons’) consisting of an oral examination on a number of previously set topics. His first examination topic was inflammation, on which he gave a discourse, and his second subject the bones of the skull. The Incorporation minutes (Figure 2) show that he then asked if his third and fourth examinations could be taken together as he ‘had been unwell for some time past and wished to go to the country for the recovery of his health’. This was agreed by his ‘examinators’. This examination was to feature later in his life when it was parodied in a pamphlet attacking Bell written under the pseudonym Jonathan Dawplucker.⁶

Bell’s ambition is again evident in a letter to his father the following year. Had he been planning a career as a physician he would have been happy to stay in Edinburgh, he tells his father, ‘but for a surgeon I assure you Edinburgh comes greatly short of either Paris or London and for that reason Dr Monro and any others that I have spoken to here upon the subject approve of the scheme [the Paris visit] very much’.⁷ Monro secundus, whose advice he clearly valued, had benefited from studying abroad and had graduated MD from the University of Leiden. Bell’s visit to Paris appears to have been a successful one, and here he boarded with a fellow Scot,

James Hamilton, who was later to become his brother-in-law and a prominent physician in Edinburgh.

In 1772 Bell was in London from where he wrote to Dr Cullen thanking him for his letter of introduction to the Scottish surgeon John Hunter whom he described as ‘the most agreeable and at the same time the most useful acquaintance I ever met with’.⁷ He also visited and observed the London surgeon Percivall Pott to whom he would later dedicate his treatise on ulcers. Bell’s interest in science is evident from his description of a lecture by the natural philosopher Joseph Priestley which he attended at the Royal Society. Priestley’s suggestion that atmospheric air contained fixed air (carbon dioxide) and dephlogisticated air (oxygen) clearly made an impression on Bell who noted from the lecture that ‘air can be spoiled by one or more animals breathing it in a confined space and become unfit for purposes of life’.⁷

PRACTICE IN EDINBURGH

On return to Edinburgh he set up in surgical practice and, within a year, at the age of 24 was elected one of four attendant surgeons to the Royal Infirmary of Edinburgh (RIE). Surgeons attended in rotation and Bell managed to remain a surgeon to the RIE for 18 years, an unusually long period. This may have been because of his lifelong friendship with James Gregory, the professor of the practice and theory of physic and the most influential member of the Infirmary Board of Management. In 1800 there was pressure from younger members of the College of Surgeons to change the system of appointment of surgeons to the RIE, making shorter appointments so that more junior surgeons might gain infirmary

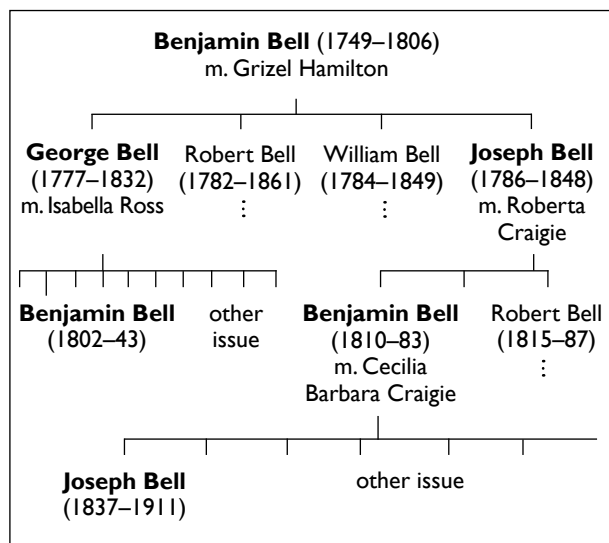


FIGURE 3 Four generations of the Bell family. Surgeons are shown in bold. Benjamin's son Joseph, grandson Benjamin and great-grandson Joseph were all presidents of Royal College of Surgeons of Edinburgh.

experience. At that time, now well established in practice, Bell was content to step down, but he wrote to the College setting out the case for 'permanent appointments' to the RIE rotation,⁸ a view which had been also promoted by Gregory. Of the 23 members of the College of Surgeons asked to vote on the matter, not one supported Bell's proposal.

John Bell (1763–1820), a successful teacher of anatomy in his own extramural school and an accomplished Edinburgh surgeon (but not related to Benjamin Bell), failed to gain appointment to the RIE rota and began to campaign against what he saw as the injustice of the rota system. As part of this he wrote criticising Gregory's views,⁹ and this brought the Bells, Benjamin and John, into conflict. This feud was at the heart of much of the criticism to which Benjamin Bell was subjected by his namesake.

1775 was an eventful year. Bell married Grizel Hamilton, the sister of James with whom he had lodged in Paris and daughter of Rev. Dr Robert Hamilton, Professor of Divinity at the University of Edinburgh. Shortly after the wedding Bell fell from horseback and sustained injuries that forced him to take a break from surgical practice for some two years. This rest was to prove fortuitous, for it allowed him time to reflect and write, and his relatively wealthy background enabled him to do this without financial concerns. To explore his lifelong interest in farming during this period of recuperation, he took the lease of Liberton farm some two miles south of Edinburgh. (It is of interest that one of Bell's idols, Percivall Pott, also fell while riding, in his case sustaining the compound fracture of the tibia that still bears his name. Pott insisted that this be treated conservatively, and the enforced period of convalescence allowed him,

like Bell, to reveal a talent for writing which might otherwise not have flourished.¹⁰)

Returning to what was to prove a highly successful career as a surgeon in Edinburgh, Bell went into practice with James Gibson who became president of the Royal College of Surgeons of Edinburgh in 1778–79. Later he formed another surgical partnership with James Russell and Andrew Wardrop. Russell, a popular teacher in the extramural School of Medicine, was required by regulation to retire from his post as attending surgeon to the RIE at the age of 50, but went on to become the town's first professor of surgery in 1802, a chair which he held until the age of 79.

Bell, Wardrop and Russell became a leading surgical practice in Scotland with a wide referral base. Wardrop reckoned Bell 'was a successful operator and during many years was more employed than any surgeon in Scotland'.⁷ He went so far as to boast of his partner that 'no one could die contented without having consulted Benjamin Bell'.⁷ This may be considered to be promotion or even advertising by Wardrop on behalf of the practice; data to confirm or refute his assertions about Bell's workload are lacking.

Benjamin Bell was appointed surgeon to George Watson's Hospital, a post subsequently held by his son George, then by his other son Joseph and finally by his grandson Benjamin (see family tree, Figure 3). In 1898 his son George joined Bell, Wardrop and Russell as a partner. Such nepotistic appointments were not uncommon in Edinburgh medical families, but the arrangement casts considerable doubt on the ability of his grandson to write a truly objective account of his grandfather's work. In 1783 Bell was elected a Fellow of the Royal Society of Edinburgh.

OTHER INTERESTS

From the late 1790s Bell's interest in economics and in agriculture became apparent. His letters to his father sought advice on the best time to sow wheat, on property purchase and on commodity speculation.⁷ His father had some knowledge of business despite the failure of a trading scheme with the Levant and subsequent business failure in Dumfries. He continued to seek paternal advice throughout his life and indeed was outlived by his father who died in 1813, aged 91 years.

Bell enjoyed considerable success with property deals. In 1775 he sold Blackethouse, which had first been occupied by his forebears in the fifteenth century. According to Kay he spent the proceeds on educating 14 members of his family.¹¹ Blackethouse subsequently fell into disrepair and the ruins can now be seen just to the south of Eaglesfield in Dumfriesshire.¹² Bell's successful surgical practice allowed him to buy the properties of Gateside and Easter

Langlee near Melrose, which he sold on to Lord Somerville, presumably at a considerable profit. The rural and agricultural lands of Newington, just south of Edinburgh, seemed ripe for development as suburban Edinburgh expanded and Bell bought a large area here in 1803. There he built Newington House in 1805, the year before his death. It was left to his son George to continue the development, and some of the new streets were given the names Blacket and Middleby from the family lands in Dumfriesshire. These streets now form a conservation area, but Newington House was demolished in the 1960s.

A SYSTEM OF SURGERY

In the introduction to his magnum opus, *A system of surgery*, Bell explained that it attempted to bring together the art of surgery in 'broad and orderly form'. It also aimed to 'exhibit a view of the art of surgery as it is at present practised by the most expert surgeons in Europe'.¹³ The book was based on Lorenz Heister's *General system of surgery*, which had been first published in German in 1743 and subsequently published as an English edition.¹⁴ Bell's *System* appeared in six volumes between 1783 and 1788. By 1801 no fewer than seven editions had been published, and it went on to Italian, French, Spanish, German and three American editions.

Yet despite this obvious popularity it was subjected to harsh criticism at the time. A bitter, vituperative attack was published in a pamphlet written under the pseudonym Jonathan Dawplucker.⁶ The author clearly had detailed knowledge of both anatomy and surgery. Struthers stated that 'John Bell made no secret that he was the author'.¹⁵ Kaufman¹⁶ too concludes that it was written by John Bell who as good as admitted authorship in his 1810 pamphlet.¹⁷ The Dawplucker letter, which is highly critical of both Bell personally and his *System*, is heavily sarcastic throughout and finds no praiseworthy features in the *System*. 'He [Bell] is a dunce in science, a pretender in anatomy, a puppy in surgery, and a plagiarist in every thing' typifies the language and the level of critical appraisal. It cannot be regarded as an objective assessment. The charge of plagiarism is unfair, as Bell seems to have been meticulous in ascribing results and techniques to others wherever appropriate. The criticisms by John Bell are partly explained by the feud described above, but also by the fact that John Bell, between 1801 and 1808 produced *Principles of surgery*,¹⁸ a textbook of surgery in four volumes which was in direct competition with the *System*. Despite its being a textbook, it contains further caustic references to Benjamin Bell.

Sir Benjamin Brodie, having borrowed a copy of the *System* at the age of 19, found it 'a most unreadable production; indeed I doubt', he later wrote, 'if it was ever read by anyone. Yet somehow it had a sort of reputation in its day which I imagine is to be attributed to it being the work of a leading surgeon in Edinburgh and to its

consisting of half a dozen thick octavo volumes.'¹⁹ It was hardly surprising that Brodie should find it difficult to read at that early stage in his career when he could have had little experience or understanding of surgery. His suggestion that it was not widely read flies in the face of the multiple editions which were published both in English and several other European languages. Moreover, it was probably the most commercially successful of the 600 or so books published by Charles Elliot.²⁰

A later criticism by Miles² that the *System* showed a 'singular lack of systematic arrangement' is also wide of the mark. Whatever its faults, the *System* was set out logically and systematically.

A MODERN CRITIQUE

The first striking feature about Bell's *System* is how comprehensive and detailed it is. It certainly fulfils the author's aims of being both 'broad' and 'orderly'. The style is clear and flowing, in contrast to the stilted English translation of Heister's work. Heister's *System* was produced as one large cumbersome folio, while Bell's was in six much more manageable and more portable volumes. For these reasons alone the huge popularity of Bell's *System* is easy to understand.

Bell's knowledge and understanding of surgery are apparent throughout. Two examples from the third volume attest to this. In the section on head injury, detailed clinical features of concussion and intracranial haemorrhage, a classification of skull fractures, the treatment of skull fractures causing cerebral compression are all clearly described and appear to be based on personal observation. Bell describes the mechanism and features of contre-coup brain injury. He stressed the need to be aware of the 'lucid interval' which can occur between injury and onset of neurological features. Trepanation in head injury, he advised, should be based on neurological examination rather than performed prophylactically.

Eye disease and ophthalmic procedures are also described with clarity and attention to detail, including a discussion on the relative merits of couching vis-à-vis lens extraction for cataract. Yet in this debate he remains conservative, favouring, like Pott, the ancient technique of couching (lens dislocation) rather than the new lens extraction technique, pioneered by Jacques Daviel and advocated by the eighteenth-century surgeons Jean-Louis Petit and Samuel Sharp.

Originality and innovation

What of the criticism that the *System* lacks originality? Four of its topics have been suggested as demonstrating Bell's innovation.

Pain relief

Bell advocated that the limb should be numbed by nerve

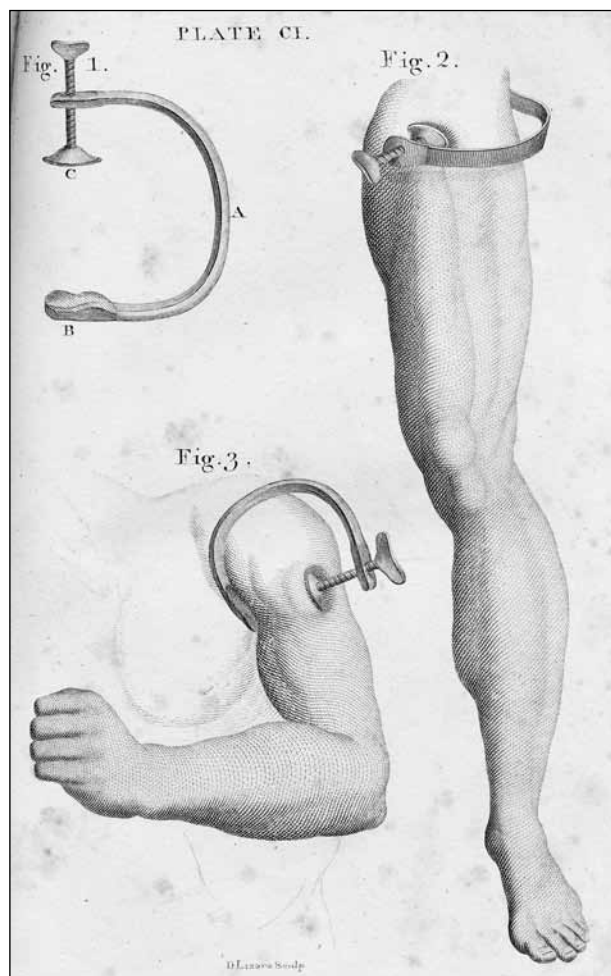


FIGURE 4 This plate demonstrating the use of the clamp for pain relief in limbs is taken from *A System of Surgery* and was engraved by WH Lizars.

compression prior to amputation. 'It has long been known', he wrote, 'that the sensibility of any part may not only be lessened but even altogether suspended, by compressing the nerves which supply it. And accordingly, in amputating limbs, patients frequently desire the tourniquet to be tightly screwed, from finding that it tends to diminish the pain... it has lately been proposed by Mr James Moore of London.'¹³ James Moore, whom Bell credits with introduction of a clamp to produce analgesia by nerve compression, was born in Glasgow and the brother of John, later Sir John Moore of Corunna, whose biography he wrote. As a 21-year-old surgeon determined to reduce operative pain, he experimented on himself to demonstrate that compression of the sciatic nerve with a clamp he had devised produced numbness in the lower limb.²¹ He demonstrated the technique to John Hunter who used it for an amputation in 1784, declaring that it produced 'the most remarkable diminution of pain'. Although not Bell's idea, it was subsequently widely promoted in the *System* (Figure 4).

Bell was also an early advocate of the routine use of opium preparations for pain relief in surgery.

In general they prove most useful when given immediately after, when they very commonly alleviate that pungent soreness of which patients at this time usually complain; and by continuing to give them in adequate doses from time to time, we are often enabled to keep the patient easy and comfortable.¹³

In promoting the wider use of opiate analgesia in this way he believed that 'to alleviate the misery of those who are obliged to submit to dangerous operations must afford the biggest gratification to every practitioner'.¹³

Skin conservation in planning surgical incisions

'Save skin' is an adage that has come to be associated with Bell and is, indeed, repeated constantly in his works. It is particularly relevant in amputation, about which Bell wrote extensively. The amputation technique ascribed to him is that of 'triple incision', which meant cutting two skin flaps, then making the incision in the muscles at a higher level and dividing the bone at a higher level still, a technique which improves wound healing. Again, this was not an original idea as Petit had described the double circular incision,²² and Robert Mynors and Edward Alanson improved this further by introducing flap technique.^{23,24} Alanson documented the improved morbidity and mortality of the new over the old technique by enumerating the outcomes in both groups of his patients.²⁴ Bell's triple incision technique was soon superseded by the long posterior flap technique which allowed for better healing by taking pressure off the suture line, and became the standard. Bell's great-grandson Joseph Bell, who outlines these developments in amputation in his *Manual of the operations of surgery*,²⁵ does not claim primacy for his forebear's technique.

Use of seton in abscess drainage

A seton, in this context, is a braided thread passed into an abscess to allow drainage by capillary action. Bell recommends its use because open drainage allows air into the wound which, he claims, delays healing, although no evidence is produced to support this view. He acknowledges that the practice of using the seton in this way had been introduced to the RIE by James Rae. No originality here, but no plagiarism either.

Mastectomy for breast cancer

Bell recommended that 'even when only a small portion of the breast is diseased, the whole mamma should be removed. The axillary glands should be dissected by opening up the armpit.'¹³ This was accompanied by his usual advice to 'save skin'. While this was to become accepted practice over the next two centuries, Bell was not the first to suggest it as Petit had earlier advocated this approach.

In summary none of these ideas was original, so there is substance in the charge that Bell was not innovative.

Other criticisms

There are other criticisms of the *System* which apply to all of Bell's writings. No results are quoted, in an era when, increasingly, medical hypotheses and surgical techniques were being supported by recorded numbers of patients or procedures.

Bell's claims about numbers of cases treated are vague. 'I do not imagine that one death will happen in 30 cases,' he writes about amputation. Nowhere in this extensive text does Bell quote figures from his own practice. This contrasts with the detail quoted earlier by Alexander Monro primus who described eight deaths following 99 amputation procedures.²⁶ The lithotomy section is a long one, running to some 145 pages, but again, crucially, Bell does not quote results, in marked contrast to Cheseldon, who kept and published accurate records of his results from the procedure, as did the surgeons of the Norfolk and Norwich Hospital.²⁷

There is evidence too that Bell did not update his ideas from the first to later editions. Tröhler has pointed out that the extensive lithotomy section does not change over 20 years.²⁷

Illustrations are almost exclusively of instruments and equipment. There are none of procedures or operations, in marked contrast to superb illustrations in the works of John and Charles Bell.

It can be concluded from the *System* that while Bell was knowledgeable, well versed in contemporary literature and wrote well, he did not record patient numbers, did not experiment and did not produce novel or original ideas. In this sense, he was neither a scientist nor an Enlightenment innovator.

SURGICAL PAPERS AND TREATISES

Bell's *Treatise on the theory and management of ulcers* was first published in 1777 and dedicated to Pott.²⁸ It includes a treatise on the surgical treatment of inflammation and its consequences, a topic that formed his probationary dissertation to the Incorporation of Surgeons. Bell clearly held the traditional view that inflammatory ulcers were caused by humoral imbalance, advocating systemic treatment that would cause 'removal of an increased tone' using 'a low diet with blood letting and other weakening evacuations', while local treatment consisted of the traditional leeches, cupping and scarifying. Although not an experimenter himself, he does make reference to experiments of the physician Sir John Pringle.

The value of this work is reckoned to be Bell's classification of ulcers, but this was based on that of

Sharp whose *Treatise on the operations of surgery* contains a chapter devoted to ulcers.²⁹ Bell does not add new causes to those suggested by Sharp. It could be argued that John Bell made a greater, more lasting contribution in disparaging the 'thousand remedies which have been applied to ulcers' while advocating rest and elevation.¹⁸ *A treatise on gonorrhoea virulenta and lues venerea* (1793) was published in two volumes, which went to three editions, and translated into Italian, Spanish and French. This aimed to answer 'whether gonorrhoea and lues venerea originate from the same contagion'.³⁰ The traditional view, endorsed by no less an authority than John Hunter, was that these were one disease, caused by a single 'venereal poison'. Further, Hunter believed that the two diseases could not co-exist, on the basis of a famous and disastrous experiment in which pus from a patient with gonorrhoea was inoculated into the skin of another subject.³¹ The recipient developed a chancre and skin rash characteristic of syphilis. Some writers have suggested that subject was Hunter himself, but Moore's recent biography concludes that this was unlikely.³²

Bell sets out his case in an ordered and rational list:

- Gonorrhoea was a local disease, syphilis a systemic one.
- He had never seen a patient with lues venerea develop gonorrhoea or vice versa. Hunter's experiment was the only recorded case.
- He cites another (by subsequent standards) unethical experiment in which 'two young gentlemen of this place failed to induce gonorrhoea in themselves by inoculating material from a chancre, or syphilis by inoculating gonorrhoeal pus'.
- He observed that syphilis could be contracted by attending doctors from their patients, but gonorrhoea never was.
- Mercury was ineffective in the treatment of gonorrhoea but sometimes improved syphilis.

In 1838 the French physician Philippe Ricord was finally able to demonstrate beyond doubt by true experiment that the two were indeed different diseases, acknowledging that Bell was correct, and in doing so he quoted extensively from Bell's treatise.³³

A treatise on the hydrocele, on sarcocele, or cancer, and other diseases of the testis (1794) is essentially a comprehensive textbook on the anatomy, pathology and surgery of the testes.³⁴ In contrast to the *System*, this publication contains valuable clinical and pathological drawings. The book demonstrates Bell's remarkable knowledge of published literature from all over Britain, Europe and America. There are extensive references to papers and case studies with which he is clearly familiar and it is written in his characteristically lucid style.

It is not appropriate to analyse here Bell's economic and agricultural papers written in later life, other than to suggest that they demonstrate him to be a thinker and a

polymath. His *Essays on agriculture, with a plan for the speedy and general improvement of the land in Great Britain* (1802)³⁵ were, according to the preface, commended well before publication by the economist Adam Smith, prior to the latter's death in 1790.

CONCLUSION

It is clear that Bell was well read and had a detailed knowledge of current published surgical work from around Europe. He wrote fluent English and his *System* was a huge commercial success, influential around the world. A comprehensive, systematic, authoritative, readable surgical text, it was the first such account in the late eighteenth century. This was due in no small part to his publisher; Elliot was able to make the work widely available in Britain, America and latterly in Europe. Edinburgh's reputation for medical education attracted large numbers of students, who naturally favoured Edinburgh textbooks. It is easy to understand in these circumstances why the *System* was widely read and became so influential. One measure of the relative influence of Bell compared with his contemporaries comes from the 1822 edition of the *Dictionary of practical surgery* compiled by the London surgeon Samuel Cooper which aimed to set out 'the present state of principles and practice of surgery'. This cites Benjamin Bell on 38 occasions, compared with John Bell on 30; understandably, Pott and Hunter feature much more frequently, at 101 and 103 times respectively.³⁶

There is no doubt that he was a keen observer – as exemplified by his description of the contre-coup injury – and was a logical thinker. His deduction that gonorrhoea and syphilis were different diseases was a major contribution, yet Ricard, working in the pre-bacteriological era, was to prove this clearly by experiment. It also required an intelligent, observant and experienced surgeon to recognise the value of the aphorism 'save skin' and, although not original, his influential advocacy of this surgical mantra was another significant contribution.

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What of the suggestion that he was a 'scientific surgeon'? He was not an experimenter, a collector, a scientific surgeon like John Hunter, but then neither was any other surgeon of that generation. Nor was he an innovator like Samuel Sharp, whose classification of ulcers he accepted virtually unchanged. He did not describe new disease entities like Percivall Pott and did not record patient numbers like the Aberdeen surgeon Alexander Gordon. Indeed, Gordon exemplifies features of the surgeon of the Enlightenment in a way that Bell does not – original observations, recording and rational thought process leading to innovative conclusions.³⁷

It could be argued that John Bell, his arch rival and principal detractor had a similar or even greater legacy of surgical aphorisms which remained relevant for centuries (drain pus early, remove sequestra, blood in a wound is a foreign body). He is equally deserving of the title 'father of the Edinburgh Surgical School'. Indeed, if such a title is appropriate at all John Monro (1670–1740) would be a stronger contender. John Bell, crucially, did not have the advantage of a dynasty to promote his work; nor, ironically for one who had championed the cause of junior surgeons, did he enjoy posthumous adulation by erstwhile pupils. Benjamin Bell, on the other hand, was praised by his surgical partners and the laudatory account written by his grandson was undoubtedly influential. Moreover, in a nepotistic tradition reminiscent of the Monro dynasty, Bell's son, grandson and great-grandson were all presidents of the Royal College of Surgeons of Edinburgh and all, in different ways, promoted their forebear.

Benjamin Bell was not a scientific surgeon in the tradition of Hunter but neither was he a plagiarist. An enforced career break, supported by a background of modest wealth, allowed him time for reading, reflection and writing. An outstanding publisher ensured the wide dissemination of his *System* and proud descendants undoubtedly helped promote his reputation.

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UK CONSENSUS CONFERENCE APPROACHING THE COMPREHENSIVE MANAGEMENT OF ATRIAL FIBRILLATION: EVOLUTION OR REVOLUTION?

Thursday 1 March & Friday 2 March 2012
At the Royal College of Physicians of Edinburgh

This two-day UK Consensus Conference on Atrial Fibrillation has been convened by the Royal College of Physicians of Edinburgh. The key questions which the multidisciplinary panel, chaired by Dr Michael Rudolf, will aim to address from the written and oral presentations and submitted abstracts are:

- **How can we best detect atrial fibrillation?**
- **Should the treatment of atrial fibrillation be targeted towards control of rhythm, rate or both?**
- **What is the most effective and safest delivery of thromboprophylaxis in atrial fibrillation?**
- **What are the differences between physician and patient expectation with regard to the management of atrial fibrillation?**

Abstracts are invited for poster presentations and should be submitted by 31 October.

In association with:



Details on registration and abstract submission can be obtained from:

<http://events.rcpe.ac.uk/events/139/uk-consensus-conference-on-atrial-fibrillation>

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