

Burch D (2009). Astley Paston Cooper (1768–1841): anatomist, radical, and surgeon.



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Astley Paston Cooper's father was a Norfolk clergyman who married well and lived well. When he died an obituary tempered its praise with a suggestion that he paid a little too much attention to appearances. The family arrived at Sunday services via a coach and four; the four black horses a glorious sight, but somewhat needless given that they lived next door to the church. The Reverend Samuel Cooper's sermons sold well, preaching solid Church & King values, but his wife's novels did rather better. Written in the form of letters, Maria Susanna Cooper's stories were sentimental and idealistic, pushing the values of the contemporary orthodoxy: both with and without a capital letter, the couple were conservative.

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A wild but charismatic child, Astley was born in 1768 and spent a period being fostered out to a nearby farming family. The story went that when he saw a foster brother run over by a cart, his femur shattered and all around him panicking, Astley saved the boy's life by calmly pressing on his femoral artery until a surgeon could arrive. This, went the tale, set him on the road to becoming a surgeon.

In fact, although Astley was present, the outcome was different. All the surgeons sent for made excuses and the boy bled to death. Astley showed no great interest in taking up their bloody trade. And despite Hunter (Moore 2005; [2009](#)) and Cheselden ([Tröhler 2003](#)) and a few others, it would have been an odd choice since surgery was not yet an obvious way for a boy from a prosperous background to look for riches, excitement or glory. As a profession it was still too close to the work of the barbers, its status well beneath that of the country's two or three hundred physicians – men who, unlike the surgeons, had attended university.

The military was more to Astley's taste, and more obviously suited to him, and in his delinquent adolescence he fraudulently dressed as an officer. He was conscious his good looks suited the glamour of the uniform but in the end he was denied a military career. At the age of 14 he saw a man being cut for the stone; and at the age of 16 he left Norfolk for London. His uncle, William Cooper, was a surgeon at Guy's Hospital. The attraction of nepotism and the offer of an apprenticeship were too tempting for the family to pass up.

London in 1784 was in turmoil. Rapidly approaching a million people, deaths outstripped births by some distance yet growth was fuelled by massive inward migration, the enclosure movements stripping away the last vestiges of rural medieval agriculture. Taking common land into private ownership made farming more efficient but the wealth this created was unevenly spread. It went to the landed aristocracy while subsistence peasants found themselves redundant. Yet even at the top of society there was an air of change, despite the fresh opportunities for riches. The war with the American colonists, driven by George III and opposed by portions of his own Government, had ended three years before but was followed by fights between Parliament and King as to who actually ran the country. For a brief period this struggle looked to have ended with the appointment of Pitt the Younger: the new Prime Minister started with the support not only of the King but also those liberals unhappy with Britain's very limited form of democracy.

Uninterested in either the practical work of surgery or its intellectual background, Astley's apprenticeship with his uncle quickly disintegrated. The older man was unhappy with the younger's laziness. Fortunately, Astley was not living with William Cooper but with one of his colleagues, the surgeon Henry Cline. Unlike the Cooper family, Cline was a political and religious radical. To his house, in the heart of modern London's financial district and across the river from Guy's and St Thomas's Hospitals, the country's leading liberals and agitators gathered. Still bored by surgery, Astley became fascinated by radical politics and by dissenting religion. It was enough to make Cline warm to him; enough for Cline to take arms against Astley's professional laziness and attempt to change it. Or at least he took one arm. Unhappy with the young man's failure to attend dissection classes, he brought a human limb home and threw it down on the table in front of Astley, demanding the youth dissect it then and there. Astley did so, and his passions awoke. From that day forwards, he later said, he regarded each day of his life a failure if he rested his head on his pillow at night without having dissected something. The story is probably apocryphal, but this time no alternative accounts exist. It was certainly accepted as true. The details may not have been right, but the emotional weight of it was. Astley became

gripped by surgery, and (at least in retrospect) it had seemed to reach out to him all of a sudden.

The next few years saw him begin a self-directed course of dissection and vivisection that occupied him until his death. He stole his neighbour's pets and his neighbour's corpses, graduating as he became wealthier to paying others to steal on his behalf. He attended John Hunter's lectures – twice, in consecutive years. The second time he objected that Hunter had changed his views from the previous year. Hunter exclaimed that he very much hoped he had: there was no point in being a surgeon if you weren't constantly learning (Moore 2005; [Moore 2009](#)). Cooper learned this lesson well. He found Hunter's enthusiasm for constant experimentation deeply infectious.

Despite the dangers and illegalities of his work, Cooper's surgical career blossomed. He also continued to take an accelerating interest in radical politics. A stint in Edinburgh in 1787 allowed him to pursue both. He married in 1791, following his family's tradition of marrying well - his bride came with a rich dowry. But although his charisma and notoriously good looks (of which he was lastingly pleased) gave him the ability to attract women easily, he seems to have been sincere. The marriage showed every appearance of being a love match. In 1792 the couple took their honeymoon in Revolutionary France. It was a statement of political idealism, a way of consecrating their marriage in the light of the democratic ideals they both held dear.

Opera and theatre and fine wine formed a part of their trip, as did serious efforts to immerse themselves in French affairs and French fashion. But for Astley, hard work was now at the heart of his life. He walked the wards of the French hospitals, studied in their dissecting rooms, and listened carefully to the political speeches at the National Assembly. As the Terror became bloodier there were bonuses – warfare provided wonderful material for a developing surgeon. After the late summer massacres the Coopers only narrowly escaped Paris alive, but they did so with their ideals and their taste for dangerous living intact. They left the city with a cargo of French body parts, exactly the things an ambitious surgeon needed to form a collection and make a name. On a journey when they were in danger of their lives simply from being English, this was a bold cargo to carry.

Back in London, Astley began performing public dissections of executed criminals, and giving public lectures on comparative anatomy. Audiences were treated to a self-confident man with a fine grip of his subject and a delight in his own powers, unfailingly accompanied by the most striking of props: his lectures were illustrated with an odorous and vivid accompaniment of body parts. The acclaim of his profession and of high society began gathering. Both were essential for a lucrative career but success in practice rested on getting appointed as surgeon to one of the new charity hospitals. These posts paid nothing themselves, but they supplied the prestige that a tactful man could turn into power and fortune. Cooper was more than tactful. He was charming.

By the end of the eighteenth century, the ambitious young surgeon was poised for success. He had become a master of human and animal anatomy, the organiser of a network of bodysnatchers and suppliers that sent him endless corpses and specimens. He had developed his own curved needle for operating on aneurysms, an operation that was now a speciality of his. He was able to follow up the results of his own work by having the bodies of those he had operated on stolen to order, their whereabouts tracked by people in his pay or influence.

The establishment of Cooper's career, however, reached a crisis. Early in 1800 his uncle William Cooper retired as surgeon to Guy's Hospital. In an extremely nepotistic world, the post should have gone to Astley even if he had been incompetent. But William Cooper actively opposed Astley's appointment. The problem was political: Astley was attached to democracy, a movement now fatally tied up in most people's minds with the French Terror. Britain was in expectation of bloody revolution; Pitt had abandoned his youthful principles and cracked down on free speech and reform, desperate for Britain to avoid following the French example. Like George III, he lived in terror of his life, convinced his own execution would rapidly follow any democratic uprising.

At the start of the new century, Cooper renounced his political beliefs. It was a naked attempt to get his surgeon's post, but also the consequence of war with France leaving British democrats in a temporarily hopeless position. He could not change the world with the ballot box but he might with a scalpel. Whatever the balance of practicality and lingering idealism, it was a successful move and led to his appointment as Surgeon to Guy's Hospital. Later in the year he developed an operation for deafness. Noting that the tympanic membrane, like any drum, needed air on both sides, he collected patients whose Eustachian tubes had become blocked. In an earlier communication to the Royal Society he had already reported on some whose tympanic membranes had been spontaneously perforated, noting that this did not necessarily result in loss of hearing. So he tried piercing the membrane himself in those whose Eustachian tubes were obstructed:

The operation to remedy the species of deafness here described, consists in passing into the ear a cannula, of the size of a common probe, in which a trocar is concealed; the cannula is to rest on the membrane tympani, and the trocar is then to be thrust through the membrane.

The trocar should be so adjusted as not to pass more than 1/8 of an inch beyond the

cannula, to prevent its reaching the opposite side of the cavity of the tympanum. Should it however touch the periosteum of the tympanum, it can be productive of no serious harm. The aperture should be made in the anterior and inferior part of the membrane, under the manubrium of the malleus, which must not be injured in the operation; and it is therefore necessary that the operator be acquainted with its exact situation. (Cooper 1801).

Half a century earlier Cheselden ([Tröhler 2003](#)) had proposed the same operation should be tried experimentally on criminals sentenced to death (Cheselden 1763). When he failed to get approval, he abandoned the idea. Astley asked for no approval and simply did it. He had a willingness to experiment on people, and an enjoyment of operating that was unusual.

Whereas Hunter had turned white and often vomited before an operation (quite frequent for surgeons of the day), Cooper actively relished cutting. He also often performed surgery without warning and without permission. If a patient was too frightened to submit, he felt, it was the surgeon's responsibility to get the job done. He was brutal, insensitive to physical pain and a bully. He was also devotedly compassionate. He had watched surgeons (including his uncle) shy away from essential operations, too frightened by the horror of performing them. Such actions, he argued, were unjustifiable. The world was full of pain, and anyone who wanted to make it a better place – particularly with a scalpel – had best have the stomach for it. He seemed to find this easy. Physical suffering made little immediate impression on him, and he was so far from being revolted by operating as to actively enjoy it.

Cooper pioneered many operations, including tying off carotid aneurysms (Cooper B 1843), something which Hunter had wondered about but never tried. Late in his career he performed the first ligation of an abdominal aorta, the operation being a technical success but the patient dying shortly afterwards. Cooper made advances in many areas of anatomy, particularly hernias and the breast, but his most useful contribution probably came in the form of surgical education. His books, teaching and example did much to raise the standard of the surgeons who worked with and after him. At a time when continental wars made the country desperate for good surgeons, it was an important role and gave him significant political influence.

A therapeutic sceptic, Cooper refrained from the bulk of pharmaceutical options open to him – a wise move, in retrospect. He never went back to his youthful cause of democratic reform, pursuing instead the goal of surgical development. He authored a series of superb anatomical textbooks (for example, Cooper 1827; 1829; 1832; 1840; 1843; 1845), based on his own vast research, and was an acclaimed teacher. His domestic life, although marred by the tragic death of his only child, was lingeringly successful. In addition he became rich – and astonishingly so. A friend of monarchs and prime ministers, his later life was packed with worldly wealth. He helped advise Parliament on the Anatomy Act of 1832, which provided surgeons with legal means of a good supply of bodies. He was made a Baronet for operating on George IV, and lived to be Sergeant-Surgeon, not only to George, but also, eventually, to Queen Victoria.

While his scientific achievements are real – he won the Royal Society's top award of the Copley Medal for his piercing of the tympanic membrane ([Cooper 1801](#)) – the lasting interest his life holds comes from the way he tackled experiences most people found too disgusting to contemplate. He was driven by a feeling for the beauty of the body, both human and animal, healthy and diseased, and a delight in uncovering its hidden structures and relations. He brought the aesthetic interests of the Romantic era to the field of surgery, and believed profoundly that compassionate and sanely chosen intentions could make a violent act merciful. It was entirely fitting that his most famous student – John Keats - was deeply influenced by this way of seeing the world, this notion that there was something intrinsically beautiful about facing up to truth, however painful, and be it physical or emotional. Keats abandoned surgery, but much of his poetry pursues these themes. Cooper directly helped Keats during his studies, and the young man admired him. The only records we have of Keats's surgical studies are those he jotted down during a course of Cooper's lectures (this is often on display at the Keats House in Hampstead – or see, for example, Guy's Hospital Reports 1942).

The Bronte children, playing imaginary games by their fireside in Yorkshire, picked Astley Cooper as one of the greatest of all Englishmen – and this from a family that had no close connection to him either personally, professionally or geographically (Gaskell 1862). It was a measure of his fame, which by the end of his life was vast. After he died, *The Times* called him the richest professional of any kind that had ever lived (*Times* 1843). A bust of him was erected in St Paul's Cathedral.

Although Astley Cooper's fame was very great, it was also ephemeral. Part of this seems to have been because of the biography his nephew wrote of him (Cooper B 1843). Devoted to his late uncle, Bransby Cooper (a surgeon himself) tried to massage the great man's story to suit what he thought were the morals of the new Victorian age. By entombing Astley in respectability he covered up most of what had fascinated the world, the mix of violence and mercy, generous passion and arrogant egotism. Even among those today who know of Cooper's ligaments (the suspensory ligaments of the breast), very few any longer know who he was.

Astley Paston Cooper was vain, egotistical, nepotistic and had a capacity to inflict pain that verged on sadism. He was also a human being whose life was devoted to a passionate engagement with surgery and with making the world a better place. Ensuring that people performed the correct operations, in the correct manner, for the correct indications: these things drove him. He would be delighted and unsurprised to have this article praising him, and tickled by some of its criticisms. He would also be disappointed if it did not include a flattering portrait, such as the one still hanging impressively in the atrium of the Royal College of Surgeons of London.

A fuller account of Cooper's life can be found in *Digging up the dead: uncovering the life and times of an extraordinary surgeon* (Burch 2007).

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