

Holding a mirror to life

Molière, William Harvey and the circulation of the blood

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*Argan: But everyone has recourse to a doctor when he's ill.
Béralde: That's evidence of human frailty not proof of the doctor's skill.*

The Imaginary Invalid, Act III

Paris, 17 February 1673: Molière's latest comedy, *The Imaginary Invalid*, was having its fourth performance at the Palais-Royal Theatre. The takings for the three previous performances meant that already the play was judged a public success. Molière himself took the role of Argan, the 'invalid', but the gestures which drew the laughter were forced. Molière, ill for some time with repeated haemoptyses, collapsed on stage and was carried back to die in his house on the rue de Richelieu. A statue of the actor still stands on this spot today.

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The play, however, lived on to become one of the masterpieces of the great French playwright, and Molière's troupe were the forerunners of today's Comédie-Française. Molière (a stage name, he was born Jean Baptiste Poquelin in 1622) was, according to contemporary descriptions, a natural comedian, miming and copying speech perfectly, as well as having in his playwriting a unique sense of what would work on stage. He believed that comedy must '...hold the mirror up to life...You haven't achieved anything in comedy unless your portraits can be seen to be living types...making gentlefolk laugh is a strange business.' Laughter for Molière did not necessarily imply frivolity. It could be the means by which a serious moral vision could be conveyed, although he stopped short of dictating moral lessons. Amongst his favourite targets as 'living types' for his comedies were members of the medical profession.

The medical profession of the mid-17th century

To understand Molière's comedy, some knowledge of the medical practices of the times is necessary. The renewal of classical learning in Europe in the 15th and 16th centuries, though it furthered the development of literature and art, did not however have a favourable effect on the progress of medicine. Admiration for the histories and poetry of Greece and Rome was paralleled by that for the writings of Aristotle, Hippocrates and Galen. It became the highest ambition of physicians to comment upon and explain the teachings of these classical authorities, an impiety to question them. All medical studies were pursued in Latin or Greek, and Latin was still very much the language of medical communication in Europe. Independent inquiry was to a great extent distrusted. The principles of physiology were restricted to a small number of 'temperaments' and 'humours.' Medicine, or 'physic' as it was

known, was concerned with diagnosis and with prescriptions listed in a Codex compiled by the various European schools of medicine, mostly carminatives, purgatives and enemas, and hypnotics. The physicians considered only 'internal' prescriptions worthy of their dignity; any kind of manual act was degrading. Surgery was still closely allied to barbering and surgeons would intervene in all conditions needing 'external' treatment, for instance those requiring bleeding or bone-setting. At the bottom of the medical hierarchy came the apothecaries who, amongst other tasks, could administer the douches and enemas prescribed by the physicians. Thus, in the opening scene of *The Imaginary Invalid*, Argan is seen totting up, in his apothecary's accounts, the items prescribed by his physician, including 'a stimulating concoction of fresh cassia with senna, to expel and evacuate the gentleman's bile, four francs' and 'a dose of clarified and sweetened whey, to purify, temper, tone up and restore the gentleman's blood, 20 sous.'

'It is a measure of Harvey's scientific imagination that he could postulate the existence of what we now know to be the capillary system, even though, with his imperfect microscope, he was unable ever to see it.'

The physicians regarded themselves as the social and intellectual superiors of the surgeons and apothecaries and frequently treated the latter with scorn; however, despite their classical learning they were generally unable to cure serious illness. This inability, their contradictory diagnoses in the same case, the shrewdness of many of them in exploiting the credulity of patients and their ability to extract fees had been the subject of jokes and farce since well before Molière's time. However, he was able to bring this criticism to new heights with his satires, as well as aiding the cause of those 16th and 17th century anatomists and scientists who sought to break with the ancient authorities, to examine the human body themselves, and to record their own observations. Amongst these new anatomists and scientists of the 17th century was William Harvey.

William Harvey and the circulation of the blood

Harvey was the first to show the nature of the heart's action and to describe the circulation of the blood. Prior to Harvey, several superb anatomists, such as Vesalius, had made detailed dissections

and drawings of cardiac and vascular anatomy, but none had comprehended the mechanism of the circulation. There were numerous fantastic theories, such as the blood moving like the tides, back and forth along the vascular channels, or the existence of tiny, sieve-like holes in the septum of the heart, allowing the blood to percolate through. Moreover, it was widely believed that the soul played a major role in the actions of the heart.

Born in 1578, Harvey studied at Cambridge and at Padua (where he was a contemporary of Galileo), then returned to London where he became a physician at St Bartholomew's Hospital. In 1616 (the year Shakespeare died), he probably began in his classes to teach the ideas about the circulation that had come to him as a result of his own dissections and animal experiments. He continued with this teaching for more than ten years, listening patiently to criticism, indeed inviting it so that he might at last discover the complete truth. Only after the entreaties of several distinguished medical friends was he persuaded to publish his conclusions, as the *Anatomical Treatise on the Motion of the Heart and Blood in Animals*, in 1628. 'The arteries are fill'd and distended by reason of the immission and intrusion of blood made by the constriction of the ventricles of the heart,' wrote Harvey. 'The blood does pass from the right ventricle of the heart through the streyner of the lungs, into the arteria venosa and the left ventricle of the heart...the arteries are the vessels carrying the blood from the heart...the veins are the vessels and wayes by which the blood is return'd to the heart itself; the blood in the members and extremities does pass from the arteries into the veins either mediately by Anastomosis, or immediately through the porosities of the flesh, or both wayes.'

It is a measure of Harvey's scientific imagination that he could postulate the existence of what we now know to be the capillary system, even though, with his imperfect microscope, he was unable ever to see it. That Harvey disliked obfuscation as much as Molière did can be seen in his use of language so exact and simple that nearly four centuries later it can hardly be improved upon.

Jean Riolan and the anti-circulationists

Harvey's work was published in Frankfurt, doubtless so that it could be more easily disseminated amongst his Continental colleagues. It was received with favour by younger scientific men; amongst these was the philosopher Descartes, who in his *Discourse on Method* wrote approvingly of Harvey's views on the circulation, though he disagreed on the mechanism of the heart's action. The older

physicians, however, refused to accept the new ideas at all; they clung to the medical theories of Galen and to associated religious beliefs. Harvey's main opponent on the Continent was the French Jean Riolan the Younger, Dean of the Medical Faculty in Paris. 'The true old medicine, confirmed by the experience of centuries, is being corrupted,' wrote Riolan, and he published in 1648 and 1649 elaborate and convoluted attempts to refute much of Harvey's work. With great courtesy Harvey, then over 70 years old, published two replies to Riolan, in which he systematically and logically rebutted all the latter's objections. The contrast between Harvey's elegant scientific observations and Riolan's recourse to tradition and religion is marked: 'Let my reply be that the facts manifest to the senses wait upon no views, the works of Nature upon no antiquity; for there is nothing older or of greater authority than Nature.' Nevertheless, the controversy continued well into the middle of the 17th century, the time at which Molière was composing four main plays and several farces in which the medical profession figured largely.

'Molière's work had some influence in bringing about a rejection of Galenist practices and a more scientific approach to medicine in France.'

The Imaginary Invalid and the doctors Diafoirus

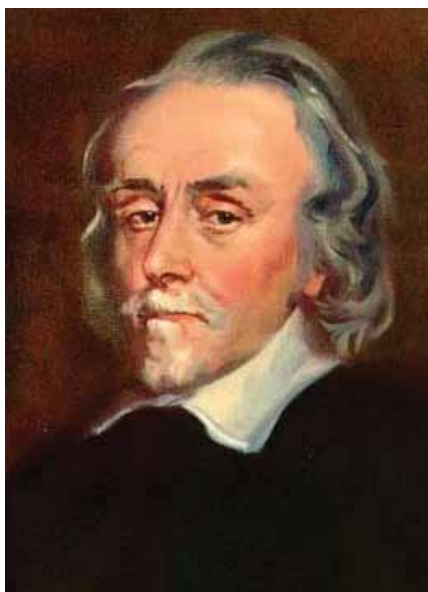
The action of this play centres around the wish of Argan, the hypochondriac, to marry off his daughter, the beautiful Angélique, to a doctor, for completely selfish reasons: 'I want to marry my daughter into the medical profession so that I can assure myself of helping my illness...and be in a position to have consultations and prescriptions whenever I want them.' He has selected for the role of son-in-law the newly qualified Thomas, son of Dr Diafoirus Senior. Molière describes Thomas as 'a great booby'. The elder Diafoirus praises his dolt of a son, including the following recommendation: 'What pleases me most about him, and herein he follows my own example, is his unswerving attachment to the opinions of the ancient authorities and his refusal ever to attempt to understand or even listen to the arguments in favour of such alleged discoveries of our own times as the circulation of the blood...' Later, Thomas addresses Angélique: 'I have prepared a thesis against those who uphold the circulation of the blood which I venture to offer to the young lady as the first fruits of my genius.' However, Angélique, in love with the handsome and athletic Cléante (who of course wins her in Act III) declines both Thomas and thesis.

Molière's audience, those educated Parisians who sought their entertainment in the theatre, would have been well aware of the circulation controversy, highly amused by the satirical references, and understanding of Molière's own views on the matter.

Molière also has much to say on the inability of physicians to cure serious illness, despite charging high fees. The elder Diafoirus complains '...the trouble with people of consequence is that when they're ill, they absolutely insist on being cured!' Argan's maidservant Toinette, the voice of commonsense, replies: 'That's a good joke!



Molière.



William Harvey.

Fancy expecting you fellows to cure them! That's not what you're there for at all. Your job is to collect your fees and prescribe the remedies. It's for them to get better if they can!

Certainly in the months prior to his death, Molière must have become increasingly aware of medicine's powerlessness to effect cures and of the fear of illness and of death. He certainly had ample opportunity to observe the profession at firsthand. Thus, he intersperses the conversation of his medical characters, the Diafoiruses and Argan's own physician, Mr Purgon, with pompous Latinesque phrases and long-winded jargon. Purgon, outraged when threatened with dismissal by Argan, predicts: '...in four days, you will be in an incurable condition...you'll fall into a state of bradypepsia...from bradypepsia to dyspepsia...from dyspepsia to apepsia...from apepsia to diarrhoea and lientery...from lientery to dysentery...from dysentery to dropsy...and from dropsy to autopsy.' Despite this dire prediction, Argan regains perfect health when the voices of reason, Toinette and his own brother Bérvalde, convince him that he is not ill at all.

Amongst Molière's friends were several doctors opposed to the blind acceptance of traditional authority, who no doubt advised him. Certainly, Molière's work had some influence in bringing about a rejection of Galenist practices and a more scientific approach to medicine in France.

Each year on 17 February, the Comédie-Française honours Molière's memory by performing the 'ceremony' which concludes *The Imaginary Invalid*. It having been decided that Argan's wish for a doctor in the family is best fulfilled by him becoming one himself, a burlesque ceremony of the conferring of a doctor's degree is held. A chorus, six apothecaries, eight men bearing enema syringes, 22 physicians and eight surgeons dancing and singing participate in this spoof, a fitting ending to this comic but thought-provoking portrayal of the medical profession of its time.

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The presenters:

Pamela Michael and Don Munro have extensive legal expertise. Pamela has assisted on a range of disciplinary/administrative law matters involving the NSW Medical Board, Medicare Australia, the Health Care Complaints Commission and the NSW Medical Tribunal. Don has represented medical practitioners in civil claims for over 25 years.

When: Friday 6 November, 10:00am-4:00pm

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More information regarding this activity and/or a registration form can be obtained from the College website or contact:

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