

KEYNES ON WILLIAM HARVEY\*  
AN ESSAY REVIEW BY WALTER PAGEL

So far it would seem we have had many *lives*, but not *the Life* of William Harvey. An ideal *Life* should be based on all the documentary, literary and other evidence that can possibly be sought out at the time and should be shown to be thus based. There should be no criticism nor any attempts at whitewashing or worshipping the hero in the light of contemporary standards, but there should be a deep understanding of his motives and of what he stood for. He should thus emerge as the child of his time and yet as a figure in its own right—a secular phenomenon without predecessors and followers. Last but not least, the narrative should give pleasure if not thrill to the reader.

A tall order—but, then, we are dealing here with a great medical biography. Indeed it goes far in meeting the demands of our schedule. It is the result of a life-long study of uniquely rich material, patiently and assiduously collected over the decades and including items from the ‘stacks and parcels’ in which the library of Sir d’Arcy Power was dispersed in 1942. Indeed Sir Geoffrey looks upon his own work as the continuation of early attempts at reconstruction of Harvey’s personality by his friend and predecessor at St. Bartholomew’s Hospital, in 1897. Nothing, however, can be compared in depth and width of scope with the work under notice. In fact it is the crowning of three of his preceding works, each a classic in itself: the *Harvey Bibliography* of 1928 (second ed. 1953), the *Portraiture* (1949) and the *Personality of William Harvey* (1949 and continued in 1958).

Three features stand out immediately: (1) the space allotted to documents old and new which take up the story most effectively, (2) the multitude of new documents and facts and (3) the sure judgement in appreciating Harvey, the naturalist and man of research and discovery, and Harvey, the practitioner and eminent *dramatis persona* in the seventeenth-century English scene. A few examples may be given:

Many will remember the startling and tantalizing hints to the discovery of *Public Records material* throwing new light on medical practice in Jacobean days and especially on that of Harvey (C. J. Sisson, ‘Elizabethan life in public records’, *The Listener*, 1951, 45, 998). The full story here emerges from a complete transcript prepared for the author and followed by his carefully balanced judgement. Medical practice was tough in those days. It had to rely on secret nostrums when and where the reckless competition of apothecaries and quacks called for this. Their use was not beneath a Harvey, nor was a lawsuit against the heirs of a patient for one outstanding quarterly payment. Judged by modern standards this is most regrettable since the ‘secret’ remedy should from the beginning have been doomed to utter failure in the face of a large stone of the bladder (finally removed by surgery, soon followed by death). However, Harvey would appear to have been inveigled into this by Christopher Brooke, a lawyer friend and his litigious wife.

This incidentally shows how the ‘threads’ in Harvey’s story connect and add up to a full picture. The circumstantial evidence assembled by F. N. L. Poynter (*J.Hist.Med.*, 1960, 15, 233) to the effect that Harvey must have been well acquainted with John Donne is further strengthened by the background to Harvey’s lawsuit as unravelled

\* *The Life of William Harvey*, by SIR GEOFFREY KEYNES, Oxford, Clarendon Press, 1966, pp. xviii, 483, illus., 90s.

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by the author. For Harvey shared Brooke's friendship with Donne. It was the same Donne who as early as in April 1621 alluded in a sermon to quantitative research into the capacity of the viscera including the chambers of the heart—a subject that at this time must have engaged Harvey's keen interest and indeed formed the last station on the way to his discovery.

Concerning eminent colleagues we mention the fine sketch of Turquet de Mayerne, the well known Paracelsist and advocate of chemical remedies, his advice to Harvey on how to treat a prince and the respective roles played by them at Court. Perhaps a little more space might have been accorded to Fludd and Bacon. The former, though a Rosicrucian mystic, was not without a possible 'sensitising' influence in Harvey's discovery. One must agree with the author's summing up that 'Bacon's mind, in fact, exhibited a quality of universality such as we cannot detect in the down-to-earth scientist working at his bench . . . Harvey's mind did not work like this. He was more like Galileo and Gilbert, engrossed in his particular problem, unaware of the possible repercussions of what he was discovering. Indeed, we note that Harvey, in spite of his advanced views on the circulation of the blood, was still Aristotelian in his practice of medicine . . . Indeed it might well be asked whether Harvey in following the Aristotelian principles and methods in his biological ideas, notably those on *epigenesis*, was not actually in advance of anything that Bacon and his "anti-Aristotelian" principles could contribute to problems of philosophy and also whether Harvey's so well-known "derision" of Bacon had not something to do with this.'

Much can be learnt about Harvey's personality from the reports concerning his prominent part in the affairs of the Royal College of Physicians and St. Bartholomew's Hospital (1609–28; 33–34; 51–56). Harvey was determined to maintain the authority of the physicians over the surgeons especially at the hospital; yet he was, the author concludes, perhaps less of a rigid disciplinarian than his harsh proposals of October 1633 to the Governors might lead one to believe. At this time he was expecting to be away from London in attendance on the King and probably felt that his deputy 'needed some strengthening if he was to keep control of so forceful character as John Woodall, one of the most distinguished military surgeons of the day and Master of the Barber-Surgeons' Company.' It is interesting that in spite of this rigorous 're-assertion of the complete ascendancy over the surgeons' Harvey remained on friendly terms with John Woodall, the Paracelsian, the pioneer in surgery, in the lemon treatment of scurvy and in the administration of chemical remedies.

The great continental journey with the Earl of Arundel (1636) may perhaps be regarded as the last climax in Harvey's active life. It opened to him a wide field of the most varied activities from personal demonstration of his discovery (Casp. Hofmann in Nürnberg), conversation about generation on vitalist lines (Marcus Marci at Prague), naturalist field-studies which would daringly separate him from the main party in lonely places exposed to all the lawlessness of the Thirty Years' War, down to the search in Italy for rare and coveted works of art on behalf of his patrons. Here we are given the almost continuous fully documented itinerary including the much lamented chicanery of his enforced quarantine at Treviso.

There is still no source as rich and fruitful as John Aubrey and his *Brief Lives* and

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much depends in our judgement as to what Harvey 'really was' upon the credence that should be given to this 'consistent dilettante' who 'must have been at once charming and exasperating', whose 'style is informal', whose 'language is racy' and who 'had an unerring instinct for the telling detail' and a 'complete lack of self-consciousness and prudery.' And more important still: '*he was never untruthful*', however 'curious, credulous, unmethodical and inaccurate' he may have been. Indeed it has been one of the outstanding features in the author's work over the years to vindicate Aubrey and this is greatly strengthened by the well balanced and beautifully expressed account of Aubrey in the book under notice. Throughout it Aubrey's stories are shown to be borne out by independent accounts.

Here some more interesting light is thrown on Harvey the medical practitioner. On the whole he does not seem to have always gained in appreciation of his doctoring activities since he had acquired almost general acclaim for his great discovery. In the earlier days this may well have contributed to the depreciation of his practice, as many would suspect a physician who dared to break away from tradition so abruptly and fundamentally. When this breakaway had turned out to be of secular importance, Anne Conway, famous for her interest and literary activities in natural philosophy as well as her inveterate headaches, received a warning against relying on Harvey as a doctor from her father-in-law, the second Viscount Conway. He wrote in 1651: 'you doe well to love and respect a person of his merite for I thinke he hath deserved extreemly well of all learned men, for what he hath found out, or offered to the world to enquire farther into: he is a most exelent Anatomist, and I conceive that to be his Masterpiece, which knowledge is many times of very great use in consultations, but in the practicke of Physicke I conceive him to be to mutch, many times, governed by his Phantasy, the excellency and strength whereof did produce his two workes to the world . . .' With Descartes and Campanella he belongs to those, Conway continues, who 'set up new opinions for the maintenance of which, they are forced to great inconveniences, in their reason, when they are brought to the Practice; to have a Physitian abound in phantasie is a very perilous thing, occations in diseases are very often suddaine, therefore one ought to have a Physitian that should be governed only by his judgment, as one puts the best man to the Helme in a storme . . .' It would basically be the same mistrust in Harvey's activities as practitioner as before: medical research is 'fancy' and he who follows his ideas cannot be a good doctor, even if they turn out to be true. We are reminded of Agrippa of Nettesheym: the very learned physician will lose all his patients, whilst the illiterate cures them all. In fact Lady Conway was not helped by Greatrakes the Stroker who had so impressed Robert Boyle and the Cambridge Platonists, nor does the younger Van Helmont's 'magnetic' treatment seem to have prevented the headaches from tormenting the patient until her death in 1679.

In Aubrey's case (and probably many another's) belittling of Harvey's doctoring was in the author's view the result of the former's belief in medicine that should border on the supernatural including astrology and magic. By contrast Harvey 'rejected what was irrational'; he remained faithful to the traditional pharmacopœia, because he had no alternative and Aubrey's sceptical attitude 'is really a tribute to Harvey's honesty in the face of a therapeutic poverty due to no fault of his own.'

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Indeed we have the unmistakable evidence of Harvey's superior *practical* wisdom in his literary monuments, especially concerning the practice of obstetrics, neurology and psychosomatic medicine. Moreover we know of the trust accorded to him by many people of the highest intellectual standard and a number of ingenious cures which he accomplished.

There can be little hesitation to agree with Sir Geoffrey's well balanced views. On the other hand the present writer feels that Harvey may well have kept a charitable and broad-minded attitude towards *cures outside the orthodox syllabus*. Harvey was full of admiration for Nature that operates 'untaught' and beyond 'the grasp of the rational soul.' Concerning the divine *mirabilia* of generation Harvey finally admitted to resort to fiction and fable (*fictum aut fabulosum*). It was just as much of a mystery to him as the art which enables a certain bird on the Bass island to lay but one egg and to place it 'upon the point of a rock so firmly that the mother can go and return without injury to it, but if anyone move it from its place, by no art can it be fixed or balanced again.' In some ways Harvey would seem to have remained a child of a pre-rational age. In this things like the 'weapon-salve' and the resuscitation of a dead bird from its ash could appeal for research into their *modus operandi* rather than for outright rejection on account of their incredibility. Indeed, Christian Morgenstern's 'law' that 'there cannot be what must not be' was alien to seventeenth century natural philosophy, nor was the co-existence of speculation, belief and metaphysics with rigid observation and rational thinking unusual. We would therefore look upon Boyle's story that Harvey used the Helmontian method of 'stroking' a scrofula with a dead man's hand with less scepticism than the author—even if the same Boyle who had been impressed with Greatrakes the Stroker may have seemed surprised at Harvey, 'who, as a rigid naturalist, as he is, scrupled not often to try the experiment mentioned by Helmont'. On the other hand not everything that sounds irrational or magic today was outside the traditional medical syllabus. Harvey's belief in the curative effects of uterine prolapse on hysteria well conforms with the ancient medical theory in which the uterus was regarded as a 'microcosm' of its own and its ascending movement in the belly as the cause of hysterical fits (*pnix hysterike*).

When Harvey died, in 1657, he had been a sick man, tormented by gout and stones, for a number of years. There is no reason, however, to believe that he died by his own hand. Yet it emerges from the author's new material that five years earlier he had deliberately taken an overdose of opium, in a fit of pains from the stone. He had asked Scarborough to look to his affairs on the morrow; but when the latter arrived, there was Harvey having happily passed the stones and in the best of spirits.

What does it all amount to? It would appear that the high praise accorded to Harvey, the 'immortal' discoverer and founder of scientific medicine for three centuries, has somewhat overshadowed the knowledge of his unique personality. As it emerges from the book it may indeed well claim some part of this immortality. Here is the secular figure that shows no trace of having been 'stiffe, proud, starcht and retired' or in the author's words: the 'small swarthy man with an alert and eager manner, interested in everything around him, observant, impatient, but with a natural dignity, permitting no liberties and an intelligence commending him to the company and friendship of many of the best minds of his day. His professional eminence brought

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him the confidence of two kings and the close friendship of one to whom he gave his affection and a loyalty not to be lessened by political adversity, or to be for one moment forgotten after events had reached their tragic climax.'

Basically, then, Harvey was a 'scientific man'. However, he was more than this, namely a great personality; he was a conscientious doctor whose superior wisdom in medical practice was recognized by the best intellects of his time. Deeply an admirer of the invisible and 'numinous' working of Nature he kept an attitude of modesty, aloof from intellectual arrogance. Withal he knew what he wanted—it is the same motive that gave him no rest in detecting and marshalling the observational and experimental evidence for his ideas and propositions and that made him 'tough' and even demanding what he believed his due in the competitive life of medical practice.

Sir Geoffrey's narrative is chronological. It must be read and enjoyed from cover to cover including the lucid accounts of Harvey's discovery and literary remains, and the *appendices*. These give Aubrey in full, then Harvey's prescriptions transcribed and annotated by Dr. Whitteridge. There follows the *Epitome* of Harvey's *Anatomical Observations* in 34 aphorisms, probably compiled by himself about 1640 and brought to the notice of the Royal Society (through Thomas Hollier, the Lithotomist) in 1687. It is of special interest that here the action of the *heart as a pump* is mentioned by Harvey—'the panting of the heart is but the pumping about of the blood, in the expansion receiving and in the contraction sending it out' (paragraph 2). Apart from the famous fol.80 verso of the Lumleian *Lectures on Anatomy* (obviously a late addition to the original notes which go back to 1616) we find the only reference to the pump in the *Two Exercitations to Riolanus* of 1649. There are altogether seven paragraphs in which the circulation of the blood is given perhaps more succinctly and crisply than in any other account. With a register of references concerning the reception of Harvey's doctrine during his life-time and the Wills of Thomas, John and William Harvey the work concludes.

It is illustrated most effectively by a number of beautiful and topical pictures, not a few hitherto unknown or rarely seen.

If life is but a thousandth of a second between yesterday and tomorrow, here it pulses through nearly five hundred pages, and not only the life of the founder of modern biology and medicine in all his human aspects and activities, but also that of his parents, brothers, friends, patrons, patients and acquaintances and indeed of the whole scene of seventeenth-century London—and all this through the life-long recreative work of another great doctor. *Habemus vitam*.