

# George Starkey's 1658 challenge to Galenists to compare their treatment results with his

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In 1658, an American-born, Harvard-educated iatrochemist who had settled in London, George Starkey, published a polemic attacking Galenist physicians and maintaining the complete superiority of 'chymical' remedies.

Starkey was an interesting character who until recently had been largely forgotten, though he was far from without influence in his own time and in the following century. Newman,<sup>1</sup> in his book on Starkey's life and beliefs, shows that he was a correspondent of Robert Boyle and that the works he wrote in the mythical persona of the alchemical adept Eireneus Philalethes, whom he claimed to be his adviser and correspondent, directly influenced Isaac Newton's alchemical works. He was also one of those responsible for the spread of Helmontian iatrochemistry in England.<sup>2</sup>

Starkey's medical practice was explicitly based on the teachings of Paracelsus, and, particularly, of Helmont, as the beginning of the lengthy title of one of his books, *Natures explication and Helmont's vindication...*, makes clear.<sup>3</sup> Starkey's title also echoes that of Helmont's *Ortus* in promising a way to a 'long and sound Life'. *Natures explication* begins with a long Epistle Dedicatory addressed to Robert Tichborne (spelled Tichburne by Starkey), the Lord Mayor of London. After excusing himself that: '*I to your Lordship so very a stranger should be so bold as to presume this dedication...*', Starkey begins his denunciation of the traditional physicians, the 'Galenical tribe' as he calls them, then says that he has proposed more effective methods of treating diseases and

... have hazarded the cause in hand, and my reputation on the trial, if they dare to take me up: But I expect a more churlish answer (by club or fist Arguments) that they will endeavour to suppress what they cannot overcome...

and he entreats the Mayor's protection against this anticipated assault.

Then he sets out his proposal for a clinical trial, thus:

I promise that if they will contend with me I will ingage on these grounds, That whatsoever they shall agree to give me for every Cure, I will forfeit twice as much for every one not cured in the time agreed on: that is, in all Feavers continual, Fluxes, and Pleuresies, in four daies; in Agues (not Hyemal [winter] quartanes) in four fits, in Hecticks and Chronical diseases in thirty (at most forty) daies, (now under continual Feavers I comprehend calenures [fevers], small Pox, Measles, &c. which are of that head) provided they will be upon the same lay [explanation below] with me in as many Patients as I have for my share, which let them be divided by tens, they to divide one ten, and I another, and always the divider to have the five Patients which the chooser leaves; I will engage to perform all my cures without blood-letting, purging by any promiscuous Purge or vomiting by any promiscuous Vomit, that is, which will work on all indifferently sick or no, without Vesication, or Cautery, without making any issue, or curious rules of diet, without Clyster or Suppository; and let them perform their cures how they can, by choosing one or more (nomine omnium [in the name of all, that is, one or more representatives of the opponents were to run their side of the trial]) to maintain the contest; and if I wave [waive, relinquish] the combate on these terms, let me be suspended from ever practising as a vainglorious boaster, and if they win of me I will recant my opinion with the greatest both solemnity and ignominy they can devise to enjoyn me to. (Starkey<sup>3</sup>; The Epistle Dedicatory, unnumbered pages 12 to 14)

Starkey's insistence that the patients to be compared needed to be 'upon the same lay' is explained in the second edition of the Oxford English Dictionary: 'Lay n.7.1. A wager, bet, stake. Often in phr. Even lay, a wager in which the chances are equal on either side, an even chance.'

Starkey's proposal is similar to Helmont's<sup>4</sup> in some respects but differs from it in the means of allocation of the patients to him and to the Galenists. Each protagonist is to have the same total number of patients. First, the patients are to be divided into groups of ten – how this is to be done is not specified. Then the groups are to be divided between Starkey and the Galenists, five patients from each group of ten to each protagonist. From alternate groups, Starkey and the Galenists will choose five patients and, in each case, the five patients not chosen will be given to the rival protagonist. Presumably, this method was intended to provide a 'fair' allocation of the patients between the treatments. Unlike Helmont, Starkey does not mention the use of lots but, like Helmont, he promises not to use bloodletting or purgation and allows his opponents to use whatever method they choose. Also like Helmont, Starkey promises his opponents that, if they win, he will recant his opinions. Unlike Helmont, Starkey proposes times within which the cures must be performed. He also offers to pay his opponents twice the sum for each of his failures that they pay him for each of his successes.

The similarities between the proposals are so many that it seems impossible to doubt that Starkey's proposal was modelled on that of Helmont, of whom he makes it abundantly clear he was a devoted follower. At the time of the publication of Starkey's book, *Oriatrike*,<sup>5</sup> the English translation of Helmont's *Ortus medicinae*, had not appeared, so Starkey's knowledge of Helmont's trial must, one supposes, have been derived from one of the Latin editions. In fact, there exists in the British Library a manuscript in Starkey's hand (MS Sloane 3708) containing an English translation of passages from the 1652 edition of Helmont's *Ortus medicinae* though, as listed by Newman<sup>1</sup> (p. 271), these do not include the sections containing the description of Helmont's challenge to the trial of treating fever without bloodletting or purging.

Of Starkey's proposed trial, Newman<sup>1</sup> says:

It is a pity that Starkey's contest never took place, as it would have been an early example of a clinical trial. But Starkey's opponents already had an institutional base in the College of Physicians, a conservative body established in Tudor times, and so had little to gain by responding to his challenge. (p. 189)

It is quite true that the traditional (Galenist) physicians would have had little to gain – and a good deal to lose – had Starkey defeated them in such a 'trial'. But equally importantly, as we have seen in the case of Helmont, the prevailing philosophy of the Galenists paid little attention to contemporary empirical observation and relied upon argument from humorist theory, bolstered, of course, with established authority. So, quite apart from considerations of income or reputation, an empirical trial would have been unlikely to appeal to them as a useful means of comparing treatments. However, as Newman<sup>1</sup> points out, some members of the College of Physicians had decided not to ignore the iatrochemists completely but, rather, to incorporate some of their remedies in their armamentarium – much to the fury of the iatrochemists – so the position was not as clear as Starkey's polemic might suggest.

Starkey<sup>6</sup> re-issued his book in 1661 with a modified title, and included the same dedication and proposal for a trial; but there is no reason to suppose that any such trial ever took place.

Starkey died in 1665 in the great plague which he, and other iatrochemists, had hailed as an occasion to triumph over the Galenists, most of whom had fled the stricken city. Starkey's death and how his friend Thomson explained away his demise in spite of his use of an 'infallible' Helmontian remedy, is described in detail by Newman<sup>1</sup> (pp. 203–208), based on an account by Starkey's friend and fellow iatrochemist George Thomson<sup>7</sup> (p. 80 ff). It presents a fascinating picture of how the iatrochemists attributed the efficacy of their remedies to their action on the 'rage' or 'horror' produced in the patient's *archeus* by the confrontation with the *archeus* of the seed (*semen*) responsible for the disease.

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