Thomas Secker is best remembered as a pastorally sensitive and conscientious bishop in the Church of England. At the end of his life he was for a decade (1758-1768) archbishop of Canterbury. As a physician, he is all but forgotten. He did, however, hold the degree of M.D. from Leyden. After early education at a dissenting academy in Tewkesbury during the principalship of another Leyden graduate, Samuel Jones, he had been the pupil of Cheselden in London, and had lived with Winslow in Paris, studying anatomy under his direction. He had attended the obstetrical clinic of Gregoire at the Hotel Dieu, and had been for three months at Leyden with Boerhaave. Among his friends he numbered Albinus, John Birch, subsequently a noted London obstetrician, and Robert Nesbitt, later Censor of the College of Physicians.

It is not my intention in this paper to consider his medical training and career in detail. That I have done in a forthcoming article, to be published in the near future. I intend to concentrate upon the text of his M.D. thesis, *De Medicina Statica*, first published at Leyden in the year of its submission, 1721. Although re-issued by Haller in 1748 as part of his *Disputationum Anatomicarum*, it was omitted from the posthumous collected « Works » of Secker, edited by his former chaplain, Beliby Porteus (4), and has therefore never been published with an English imprint. Despite its re-publication by Haller, and its commendation by Johannes de Gorter in the preface of his *De Perspiratione Insensibili* of 1736, it has been virtually ignored by medical historians. Renbourn, for example, although citing Gorter's work, makes no mention of Secker's, despite the former's prominent reference to it (5). Thus one of the few major contributions by an Englishman to the debate on the metabolic work of Sanctorius has languished unnoticed.

What Renbourn, called « the resuscitated Methodic doctrine » of Sanctorius, as it spread over Europe, was « everywhere hailed as a new landmark in medicine » (6). Giorgio Baglivi claimed the « new » medicine was based on two pillars, Sanctorius’ statics, and Harvey’s discovery of the circulation of the blood (7). Boerhaave went so far as to say of Sanctorius’ *De Statica Medicina*, published in 1614, that « no medical book has attained this perfection » (8). Thomas Secker, submitting his thesis to the university where the same Boerhaave was pre-eminent, was one of the first to seriously challenge the accepted orthodoxy on Sanctorius.

Secker's *De Medicina Statica* is a sustained critique of Sanctorius' epoch-making book (9). It is constructed in the approved academic manner of the time, the citation and criticism of the works under analysis. Secker declared his purpose as being the discussion of the authority of the Sanctorian Aphorisms (10).

Sanctorius had not acknowledged his debt to his predecessors, nor the assis-
tance of others. As Seeker put it, « from the Preface, one would think that he never had anyone associated with him, in that he attributes everything to himself » (11). But, Seeker points out, Obicius (12) had made it clear that a friend of Sanctorius, the Venetian physician Hieronymus Thebaldus, had been engaged in similar experiments at least three years before the publication of *De Statica Medicina*, but had written nothing on the subject himself. « It is clear » says Seeker, « that Sanctorius stimulated many other men besides Thebaldus to consider these matters, and used their observations in compiling his Aphorisms » (13).

On the question of Sanctorius’ acknowledgement of his predecessors, Seeker showed, by a careful comparison, his heavy indebtedness to Galen in particular (14). « In Galen’s work the doctrine of Perspiration fills nearly every page. And our Author seems to have taken not a small proportion of his own Aphorisms from this » (15). With a degree of sarcasm, he concludes that, in regard to those things which are common to Galen and Sanctorius, « it would be never-ending if we were to pursue all of them » (16).

As well as this discussion of the lack of originality in many of the Aphorisms, Seeker attacks Sanctorius' apparent willingness to accept what he calls « invented hypotheses » (17). « It is clearly absurd » he says, « that invented hypotheses seem to some people more certain even than experiments themselves » (18). Sanctorius, he felt, could not escape this condemnation, and, rather entertainingly, he instances two statements relating to sexual intercourse as examples. How does Sanctorius know that « agitation of the body during intercourse does more harm than ejaculation »? Where did he get the idea that « endless agitation of the body in bed is greater exercise than a swift run » (19)? If these notions are not hypothetical, says Seeker, tongue-in-cheek, on what evidence are they based Sanctorius’ own experience?

Seeker found difficulty in discerning in Sanctorius' work what had originated in experiment and what from « Authority and Opinion » as he put it (20). He came to the conclusion that he had « sometimes honoured rather lightweight propositions with the title of Aphorism » (21) and that he was « addicted to hypothesis » (22).

Seeker was no less sparing in his criticism of Sanctorius’ experimental method. As a preface to his examination of this, he isolated an important criterion for biological experiment:

« In order to know the effect produced by the changing of one single cause, that cause ought to be changed while all the others either stay unchanged or are so little changed as regards that one cause that the difference arising from it can be safely ignored » (23).

In sections 13 and 16 of his thesis, Seeker examines Sanctorius' experimental method, and finds it wanting:

« Each man should consider this for himself: how truly can it be thought that what has been found in one or two men can immediately be applied to other people who are different in region, age, temperament and regimen of food and life? The size and quality of the differences created by all these factors can be ascertained. In some cases it can be guessed at, but in every case it can be learned only by wide-ranging and very varied experience. Because of this it is to be seriously regretted that Sanctorius has not recorded sufficiently distinctly for posterity all the circumstances of his own experiments, the number, and particularly the type of associates he had in his design, and how he and they arranged their lives » (24).

He also had reservations on whether Sanctorius had « compared and contrasted those experiments with sufficient diligence in drawing his Aphorisms from them. For the Aphorisms are clearly seen to contradict each other sometimes, and so it should not surprise us that the experiments do not always agree with each other » (25).
Seeker was not the first critic of Sanctorius. He discusses the work of two « commentators » as he calls them (26), and also that of another two who had « tried to illustrate the Static Art by experiments following Sanctorius » (27). The two commentators were Martin Lister and John Quincy (28). Lister, whose Santorio Sanctorii de Statica Medicina... cum Commentario had been published in 1701, was a conservative thinker, hostile to Sanctorius. Seeker, however, dismisses the work as hypothetical and insufficiently related to source material (29). Of John Quincy’s Medicina Statica Britannica, for which he had been awarded an M.D. of Edinburgh in 1712, his opinion is almost savage: « Others will see whether he has explained Sanctorius better than he has understood him: certainly in most places he understood him very little » (30).

As far as those who had conducted experiments in the Sanctorian manner were concerned, Seeker discussed the findings of John Floyer and James Keill (31). Floyer had included an account of « certain static experiments which he carried out of himself » at the end of his Treatise on the Asthma, published in 1698 (32). The narrative, says Seeker, « is a little obscure » (33), but he details the experiments, and seems largely satisfied with Floyer’s work. James Keill, whose physiological experiments were, according to Seeker, carried out two years before those of Floyer (34) — that is, in 1696 — though his Medicina Statica Britannica did not appear until its publication in the third edition of his « Essays » in 1718, is received more critically. His « paucity of experiments » is singled out, as is the lack of evidence to underpin his Aphorisms (35).

Although personally convinced that « so many reasons and experiments confirm that free access is open through the pores of the skin to tiny particles of both fluid and solid » (36), Thomas Seeker was not sparing in his critical analysis of Sanctorius and later exponents of the « Static Art ». He was very unhappy about hypotheses being advanced which were based upon « Authority and Opinion » and not upon experimental evidence (37). Lister, Quincy and Keill were all criticised for their tendency towards this practice, as was Sanctorius himself. Indeed, Seeker even casts doubt upon the importance of « Perspiration » which Sanctorius claimed. « We have seen » he says, « the origins of gangrene, wind [flatus], palpitation and suffocation of the womb deduced from obstructed perspiration, without benefit of experience or reason » (38).

Although himself no mean mathematician — he had studied under John Eames (39) — in his emphasis upon experimental evidence Seeker ranks with those like Desagulier in heralding a renewed emphasis upon experiment in the face of the rigorous mathematical iatromechanism then in vogue (40). The Boerhaavian iatromechanism which Theodore Brown called « the orthodoxy of the 1720s-1740s » (41) was more suited to Seeker’s temper. Although perhaps the title of this paper should end with a question-mark, he has certainly been unjustly neglected by historians of the doctrine of « insensible perspiration ».

TEXTUAL REFERENCES


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5. Johannes de GORTER. — *De Perspiratione Insensibili* (Leyden, 1736). The work is dedicated to Boerhaave.


8. Ibid.

9. I acknowledge the great assistance of Mrs Judith Phillips of Sheffield, who undertook the translation of Seeker's latin text. Without her co-operation and scholarship, this paper could not have been written.

10. § 2, p. 592. This, and subsequent references, are to the latin text printed by Haller, *op. cit*.

11. § 13, p. 604.

12. i.e. Hippolytus Obicius, fl.: 1615-18.

13. § 13, p. 604.

14. Esp. §§ 4-8, pp. 593-600.

15. § 4, p. 593.

16. § 4, p. 594.

17. § 8, p. 600.

18. Ibid.

19. Ibid.

20. § 11, p. 602.

21. § 13, p. 605.

22. § 14, p. 606.

23. § 12, p. 603.


25. § 16, p. 608.

26. § 20, p. 612.

27. § 21, p. 614.

28. For Lister, see the D.N.B., D.S.B., 8, pp. 415-417, and N.F.J. Eloy, *Dictionnaire Historique de la Médecine Ancienne et Moderne* (Mons; 1778), vol. 3, p. 89. For Quiney, the D.N.B. Seeker does not mention Quiney name.

29. § 20, pp. 612-613.

30. § 20, p. 612.


32. § 21, p. 614.

33. Ibid.

34. § 22, p. 615.

35. § 24, pp. 617 and 618.

36. § 12, p. 603.

37. Cf. his contemporary, George Berkeley, in *De Motu*, published in the same year (1721), § 21: «To throw light on nature it is idle to adduce things which are neither evident to the senses, nor intelligible to reason. Let us see then what sense and experience tell us, and reason that rests upon them.»

38. § 14, p. 606.

39. For Eames, see the D.N.B.

40. Desagulier’s *Lectures on Experimental Philosophy* were published in 1719.