

REPORT ON THE REVEREND THOMAS BAYES

by

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What we know about Thomas Bayes

Thomas Bayes was born in London circa 1701 and died in Tunbridge Wells in 1761. He was educated at a Dissenting Academy in London and then went to University of Edinburgh to study for the Presbyterian ministry. He also studied mathematics at Edinburgh. After Edinburgh he became a minister at Mount Sion Presbyterian chapel in Tunbridge Wells. He and some of his relatives are buried in Bunhill Fields in London, where his siblings lived.

Many English Presbyterians of the mid-eighteenth century were quite different in their theological outlook from modern-day Presbyterians. Many were free-thinkers and strayed from standard Christian orthodoxy. Bayes seems to have fallen into this category.

Thomas Bayes published very little in his lifetime and very few of his manuscripts survive. A complete catalogue is: two books (one theological and one mathematical), two mathematical papers related to probability theory in the *Philosophical Transactions*, a letter in the Royal Society Archives, a notebook held by the Institute and Faculty of Actuaries Archive, and some mathematical manuscripts now held in the Centre for Kentish Studies. In his mathematical work there is nothing that could in the slightest be called controversial. His lasting and important contribution is the first expression of what is now called Bayes Theorem in probability, the continuing application of which has had an enormous impact on modern society.

His values as we understand them from any writings, speeches etc.

Other than one theological book that he wrote, Thomas Bayes did not describe his own personal beliefs and values that I have been able to find. The son of a Presbyterian minister, Bayes was also a Presbyterian minister. Based on his close friends and acquaintances, the best description of his beliefs would be Unitarian, Arian in the jargon of his day. From his only other book and his manuscripts, almost entirely mathematical, what can be concluded is that he valued rational thought.

I went over his theological book very carefully, as well as the non-mathematical preface to the mathematical book. In both books he is arguing against someone else's position, either mathematical or theological. In both books he states his position very logically and makes no ad hominem attacks on either of the other authors in order to make his points. In an eighteenth-century context, the language he uses in his theological work is fairly inclusive. Most often he uses the term "God's creatures" rather than "man" or "mankind", for example. His mathematical book is a reply to George Berkeley's *The Analyst*, which also includes the phrase "infidel mathematicians" in its title. Bayes's comment on the phrase was that it was wrong of Berkeley to bring religion into the argument as it would inflame what was in essence a mathematical dispute.

Bayes's other written work is his will. His father, Joshua Bayes, had left his money to be divided among all his children, both males and females receiving substantial amounts. Thomas Bayes followed his father with a similar kind of will. He was a lifelong bachelor and divided his estate, for the most part, among his siblings, both male and female. His only known feminine connection was with Sarah Jeffery who owned a lodging house in Tunbridge Wells. Bayes, who was probably one of Sarah Jeffery's lodgers, left her a substantial legacy in his will. This was likely done in gratitude for the care she and her family had given him during his time in Tunbridge Wells.

Any particularly controversial or problematic aspects to his life which may come back to haunt us either now or in the future

The only possible place where there may be a problem concerning Bayes is the source of his wealth. He inherited wealth from his father who inherited wealth from his father. For Thomas Bayes and his father, the money appears to have been invested mainly in government securities. The original source of wealth came from Joshua Bayes's father and grandfather. Both were prominent in Sheffield in the seventeenth century as master cutlers. The family were pious Nonconformists. Since the British slave trade was centered in London until about 1720 and since neither Joshua nor Thomas Bayes were involved in the manufacture of cutlery, it is highly unlikely (though it cannot be proven to be impossible) that the Bayes family was involved in any way in the slave trade.

Any particular positions on subjects like slavery, war/aggression, human rights, race, sex/sexuality etc. or anything else which could be cited against him

Bayes wrote nothing about slavery. His probable stance against slavery might be inferred from whom he associated with. His good friends were Richard Price and Philip Stanhope, 2nd Earl Stanhope. Price wrote a tract against slavery and Stanhope's son, the 3rd Earl Stanhope was a vocal abolitionist.

Following the so-called Glorious Revolution of 1688, there were strong whiffs of anti-Catholicism in England. There is no evidence that I can find that Bayes was vehemently anti-Catholic. His upbringing shows a fairly balanced approach. His father, Joshua Bayes, wrote what some have interpreted as an anti-Catholic tract. I looked at it carefully. It is a very logically written argument about why church worship should be in the vernacular, rather than in Latin as was the practice in the Roman Catholic Church. There are no anti-Catholic diatribes in this publication. The strongest language that Joshua Bayes uses is that the Roman Catholic Church was in error on this point.

I did find one story about Bayes that puts him in a good light regarding race. A number of princes from India visited Tunbridge Wells. Bayes took the time to show them an ice house as the princes had never seen frozen water. The episode can be interpreted as showing Bayes's interests in science over race. The story, however, may be apocryphal.

A general assessment of the risks of using his name in a 21st century context

I think the risk is very small that there would be a negative reaction to the use of his name. The only risk that I can see is that there may be a reaction to naming the school after a clergyman in what is an increasingly secular society.