Selling Science in the Age of Newton: Advertising and the Commoditization of Knowledge by Jeffrey R. Wigelsworth

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Accentuating Larry Stewart's notable argument [1992] that a flourishing science requires public acceptance, Selling Science in the Age of Newton suggests that interest in science in early 18th-century England was generated by advertising. Quite simply, as newspapers proliferated through the 1720s, so did advertising and so did interest in science. In this engaging book, Jeffrey Wigelsworth shows how an enormous range of science advertising from the establishment of the Philosophical Transactions in 1665 to Isaac Newton's death in 1727 made its appeal to Fellows of the Royal Society, Whig, Tory, entrepreneur, and layman. He emphasizes the public and popular nature of a mode of discourse that prevented any distinction between professional and amateur: science needed to be sold in a particular manner through particular strategies, and natural philosophers and their publishers had to be shrewd publicists.

The book is divided into five main chapters: the first three mark the chronological development of science ads until 1727, whilst the last two are particular case studies of the relationship between science advertising and name brand. After the introductory chapter 1, chapter 2 begins with the inception of the *Philosophical Transactions*. Here to be found are the first advertisements of scientific texts, published by a Henry Oldenberg desperate to supplement financially his unpaid presidency of the Royal Society. Any budding relationship between science and advertising in the *Philosophical Transactions* was cut short, however, by a combination of Oldenberg's death in 1677, the short lived replacement of the journal by the *Philosophical Collections*, brainchild of the vitriolic Robert Hooke who distributed only to personal friends, a general increase in printing costs, and the rapid

expansion of weekly newspapers from 1695 after the lapse of the Licensing Act which had required governmental permission to publish. In this respect, Wigelsworth emphasizes how from a very early point science advertising became a very public exercise. He notes that this did not extend to a public political fracturing of science. In chapter 3, Wigelsworth shows that the many science ads published in the two notable political tri-weeklies through the tumultuous period between 1695 and 1720, the Tory Post Boy and Whig Post Man, were very similar. Whigs and Tories alike were interested and subscribed to the same Newtonian books and the same Newtonian lectures, and both bought the same sorts of natural philosophical ephemera. This gives 18th-century historians yet another reason to pause before accepting any strict alliance between Newtonianism and Whiggism.

Chapter 4, the rise of science advertising in daily newspapers through 1727, is the most ambitious of the book. Here Wigelsworth builds on the work of James Secord and Jon Topham, who have each argued that distinctions between 'popular science' and 'science' in the 19th century must be challenged, as all types of text are traces of communication acts. Wigelsworth extends this work backwards to the early 18th century, treating newspaper ads as science writing that used similar rhetorical means as the books they were selling. Advertisements most notably from the controversialist William Whiston and the public lecturers John Theophilus Desaguliers and both Francis Hauksbees were all crafted to pique particular interests about the natural world and to draw readers into that world through their participation in (often pricey) lecture courses and purchase of accompanying books and instruments. These ads were digests of predominant themes in Newtonian texts. Advertisements for lectures and books in physics, chemistry, and botany emphasized how experimental explanations of the world were favored by the Newtonians, as opposed to abstract mathematics. Ads for general encyclopedias on practical issues like gardening and animal husbandry suggested 'philosophical' approaches. The upshot is that the type of writing in the ads convinced the reader in a similar manner as technical books and this blurred any distinction between popular and professional natural philosophy.

The final two chapters focus on particular episodes in early 18th-century scientific advertising, showing how science was not just a commodity but a brand. Chapter 5 looks at the creation of the Board

of Longitude in 1714 to evaluate how longitude could be calculated most accurately and the many advertisements that offered solutions to the problem. Whilst we know that no solution was found until the 1760s, Wigelsworth suggests that the plethora of clocks, astronomical treatises and, in William Whiston's case, floating lighthouses, offered up in the name of 'Longitude' reveal how a particular concept was used as a brand that attracted the attention of the Royal Society, the Board of Longitude, and public consumers. Chapter 6 looks at name brands, focusing on the 1719 conflict between the publishers William Mears and John Woodward and the lecturer John Desaguliers, who had produced rival translations of Willem Jacob sGravesande's Physices elementa mathematica. At one level, both translations revealed a straightforward relationship between advertising, credibility, and brand name. Woodward and Mears advertised that the notable Oxford natural philosopher John Keill had corrected the Latin, whilst Desaguliers went further by adding his friend Isaac Newton's name. However, in this competition for sales, Desaguliers went further by advertising his own name as a brand of reliability and exactness, opposed to the dubiousness of Woodward and Mears who had produced a bad translation.

I was impressed by the range of sources used by Wigelsworth and found his writing clear and engaging. I did feel that some of the argumentation, particularly the idea that science advertising was representative of science writing, needed a bit more development. One of the most compelling elements of this book is the subtle duplicity of advertisers in selling consumers not quite what they wanted. Wigelsworth reveals on page 116 how ads for 'philosophical essays' were actually for sheet music and 'mechanical lectures', nothing more than dancing lessons. In this respect, any science writing found in the advertisements was quite different to that of the text or product sold. Indeed, Wigelsworth's careful decoding of the sGravesande controversy seems to me an argument about what true 'science writing' entailed. As Wigelsworth shows, Desaguliers' careful delineation of the linguistic inferiority of the other translation revealed a deep concern, unshared by his rivals, about the veracity of language and explanation. In this respect, there was a fundamental difference between the two texts such that any alignment between the 'science writing' of Desaguliers' ads and translation must be treated differently than the similitude of Mears and Woodward's ads and translation. If this

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is so, then, there are two sets of ads and text, each claiming to be 'science writing', which could be construed as a division between 'popular' and 'proper' natural philosophy.

This particular quibble aside, Wigelsworth should be commended for breaking new historical ground. He extends considerably fruitful studies of science and the public sphere by paying attention to a wealth of information in under-appreciated and most literally quotidian texts. I recommend this book to historians of advertising and historians of science alike.

## **BIBLIOGRAPHY**

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