

Matthew Cobb, *The Egg and Sperm Race: The Seventeenth-Century Scientists Who Unravelled the Secrets of Sex, Life and Growth* (London: Pocket Books, 2007), ISBN 9781416526001.

Cobb's lively work provides a fresh insight into the scholarly debate on this important era for sexuality and reproduction, addressed in the works of Thomas Laqueur (1990, 2003), Laura Gowing (2003) and Mary Fissell (2004). However, while Gowing and Fissell have recently examined the popular understanding of sex and its impact upon people's lives, Cobb counteracts this trend with a strikingly scientific perspective.

The first half of Cobb's work is essentially structured chronologically, relating in turn the developments within the field of 'Natural History' in England, the Netherlands, France and Italy. The second half of the book then examines various areas of specific generative research, such as the experiments into spontaneous generation found in insects and the use of the microscope to discover spermatozoa. To achieve this grand synopsis of early modern sexual knowledge Cobb draws upon a variety of sources including contemporary letters, printed medical works and a vast amount of secondary literature.

The narrative style of the book offers an easy to follow, very readable, understanding of how these monumental discoveries were made. Furthermore, Cobb provides an excellent sense of the contexts in which the scholars, physicians and scientists of this era were working. He sets the scene of 1673 plainly: 'autumn had set in early – the first sharp frosts had occurred earlier in the week promising a cold winter. The dank odour of dying vegetation from the nearby fields mingled with the tang of sewage and the dusty smell of burnt-out buildings' (p. 155). Similarly Cobb conveys the competitive nature of the pursuit for generative knowledge and the resulting feuds between key players with confidence, something which is, perhaps, missing from other works and which is essential to understanding the discoveries of generative theory.

Nevertheless, this overarching narrative framework also leaves the reader feeling frustrated at the occasional lack of analytical depth, which results in unanswered questions. In his discussion of the theories of pre-formation and pre-existence Cobb notes that Swammerdam (a key academic in the discovery of women's eggs) was introduced to the idea of pre-existence by a Catholic priest and philosopher Malebranche (p. 236). Yet it is not made clear whether or not Malebranche's Catholic background was intrinsic to this belief; was this idea more commonly found amongst the Catholic

community? Or was religious persuasion irrelevant to debate upon the pre-formation of human life?

Moreover, Cobb appears to have adopted a somewhat progressivist stance in analysing this period. The history of medical enquiry is divided simplistically into 'modern' or 'pre-scientific' and 'superstitious'. This often leaves the reader feeling that Cobb is dismissive of the long standing, comprehensive, classical framework of understanding that he is discussing. He often states that despite a discovery the understanding held by the academic community was wrong or wildly inaccurate. In a similar vein the population of early modern Europe is broadly classified, outside of the medical profession, as the 'ill-educated, superstitious masses' (p.10). This not only lumps together vastly differing sections of society and communities, but partially neglects the role of the post-reformation churches in shaping what society saw as superstitious. For example he mentions that people were unsure whether like-bred-like and notes that women could give birth to strange monsters. It is ideas such as these that Cobb brands as superstitious, however, monstrous birth was often viewed in a strictly providential fashion. A monstrous birth was a portent, God's warning to a community that it had transgressed and needed to reform its ways, not merely a superstitious and incomprehensible event. Consequently, although Cobb's focus upon the scientific endeavours of the period is thorough and enlightening, it sometimes seems that a more contextual and slightly less anachronistic approach may have enhanced his understanding.

Despite these difficulties Cobb's book presents a clearly organised and highly engaging synthesis of the early modern discoveries in this field and should be considered an essential text for anyone studying the history of the reproductive sciences.

Jennifer Evans

University of Exeter