

## Breaking barriers in the voting booth and the laboratory

*A Lab of One's Own: Science and Suffrage in the First World War.*, Patricia Fara, Oxford U. Press, 2018, \$24.95 [Buy on Amazon](#)

Kathleen Sheppard



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## Breaking barriers in the voting booth and the laboratory

The new book *A Lab of One's Own: Science and Suffrage in the First World War* by historian of science Patricia Fara is an engaging and thoroughly researched narrative of women's struggles and successes in the sciences in Britain up to and during World War I. It is also well-timed, purposefully published in the year marking the centenary of the women's vote in Britain.

Readers of other Fara books such as *Pandora's Breeches: Women, Science and Power in the Enlightenment* (2004) or *Science: A Four Thousand Year History* (2009) will be familiar with her skill in creating a well-organized, nonlinear narrative that appeals to both academics and the general public. *A Lab of One's Own* weaves chronological and thematic strands and contains some women's stories that have not previously been fully told. Fara's sources include unmined archives and letters, as well as a unique manuscript at Newnham College, University of Cambridge, called "War Work, 1914–1918," which kept track of some of the contributions scientific women made all over Europe during the war.

The book contains five thematic sections, with titles such as "Abandoning Domesticity, Working for the Vote" and "Scientific Warfare, Wartime Welfare." Some of the chapters in those sections provide broad historical context; others dive into short but in-depth biographies of the women who illustrate each section's main points. Intellectuals from the famous Bloomsbury Group are featured throughout the book, especially novelist Virginia Woolf, political theorist Leonard Woolf, and the members of the Strachey family, known for their work promoting psychology and women's suffrage in the UK.

Fara also spotlights less well-known women like chemist Ida Smedley and physician Mona Geddes. Born in 1877, Smedley earned a doctorate at the University of London and moved to the University of Manchester to become the first female staff member in the chemistry department there. She and her sister Constance, later a noted suffragette, became involved in feminist politics early in their lives. Despite her privileged background and her successful, award-studded career, Smedley still encountered gendered road-

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Patricia Fara  
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blocks: unfriendly male colleagues, lack of access to male academic institutions such as university common rooms, and intense scrutiny from colleagues and their wives.

Five years older than Smedley, Geddes came from a family of accomplished women. She counted among her aunts both Millicent Garrett Fawcett, the president of the National Union of Women's Suffrage Societies and a co-founder of Newnham College, and Elizabeth Garrett Anderson, the first woman to qualify as a medical doctor in Britain. Geddes grew up in Edinburgh and in 1896 became the first woman to earn an MD in Scotland. Fara skillfully places both Smedley and Geddes in their familial, institutional, and disciplinary frameworks and avoids the potential pitfalls of focusing exclusively on exceptional female "firsts."

Oxford and Cambridge were important settings for radical women scientists and suffragists. Fara is an Oxford graduate, and her understanding of what it's

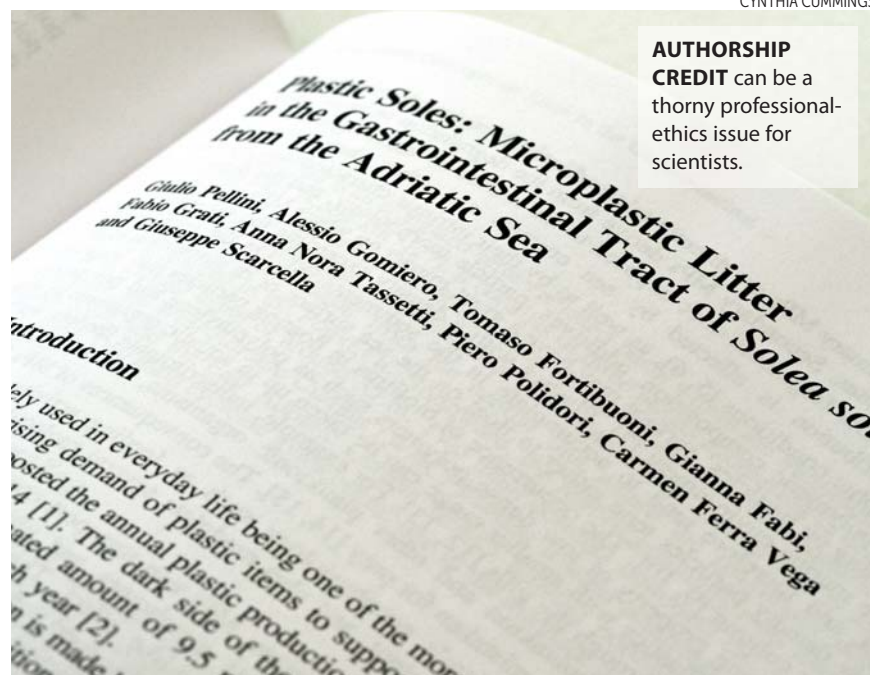
like to be in one of Oxford's all-woman colleges clearly guides her writing. The Oxbridge universities are the oldest in England and among the oldest in Europe, and they did not admit women for most of their long histories. That fact makes them prime candidates for exploring the long process of women's fight to be recognized as regular students with full privileges. Fara parallels internal institutional struggles at Oxbridge with the wider fight for women's suffrage and acceptance into the scientific professions.

It seems significant, though, that Smedley, Geddes, and others were associated with universities outside Oxbridge. The book is missing a fuller discussion of what women were doing at redbrick universities like University College London (UCL). Considered the college of the working man, UCL was sometimes called the radical infidel college and it allowed women to take full degrees from its opening in 1826. Fara mentions a favorite story about Egyptologist Margaret Murray invading the UCL men's common room and causing quite a stir; she also talks about Marie Stopes, a biologist and unconventional sexologist active at UCL. Both women tackled many of the challenges Fara's Oxbridge women encountered. Although it is reasonable to set boundaries so that a book does not become a multivolume series, a full chapter on the women of UCL and other universities would have been useful as a counterpoint to the discussions of Oxbridge.

Fara closes out the book with a short chapter on the future of women in the sciences in the UK. In 1918 women property owners age 30 and over won the right to vote in the UK, and 10 years later, universal suffrage was established for all citizens over 21. The new voting rights were a monumental achievement that allowed women to change politics, economics, and society, but they did surprisingly little to help women enter the sciences. As Fara argues—and as women currently in scientific professions could understand—women continue to face many challenges as they pursue scientific careers. Fara concludes her valuable study by examining the lessons we can still learn from the women of the early 20th century.

**Kathleen Sheppard**

Missouri University of Science  
and Technology  
Rolla



**AUTHORSHIP CREDIT** can be a thorny professional-ethics issue for scientists.

## Ethical issues from authorship to human-subjects research

As science exerts increasing influence over our lives, a growing number of scholars have grappled with ethical issues surrounding scientific research. Sandra Greer, an emeritus professor of chemistry and biochemistry, adds to the literature with her book *Elements of Ethics for Physical Scientists*. Although many of the issues Greer raises are not examined in depth, one of the book's strengths is its breadth—the topics covered range from authorship and peer review to debates about weapons development. Greer supplements each chapter with case studies and inquiry questions that often contain interesting nuggets of historical information. One such story, about Robert Millikan and his famous oil-drop experiment, asks the reader to consider the ethics of his research practices.

Chapter 1 introduces the reader to two of the main theoretical traditions in ethics: utilitarianism, in which actions are judged based on their societal consequences, and Kantianism, in which actions are judged based on whether ethical obligations have been upheld. Greer provides the reader with an overview of the basics of

### Elements of Ethics for Physical Scientists

Sandra C. Greer  
MIT Press, 2017.  
\$50.00



ethical theory, but some gaps are present. Those include the absence of a direct mention of virtue ethics, which focuses on the character of the actor. It is a strange omission; virtues such as being honest, fair, and sincere tend to be at the core of most professional codes of ethics and discussions about what defines a good scientist. But Greer does outline important things that she thinks scientists should value, such as truth, the sanctity of human life, and the universe.

From there the book moves into a discussion of how to practice science and publish scientific findings ethically. Greer highlights how both fraud and research misconduct, such as falsification, fabrication, and plagiarism, can plague scientific