

1 Introduction: Susan Stebbing and Her Place in the History of Analytic Philosophy

Susan Stebbing was the UK's first female professor of philosophy as well as an anti-idealist philosopher of physics, an early advocate of mathematical logic, a pioneer of critical thinking, a trilingual anti-fascist activist, a secular humanist, and an educator of generations of female university students, the general public, and schoolchildren, including Jewish refugees. She deserves to be much better known than she is now. When Stebbing was born, in 1885, the fledgling cause of women's education was still highly controversial and under constant attack from the Victorian establishment. To attend a women's college, as Stebbing did when she went to Girton in 1903, was already a feminist act. To rise through the ranks as an academic even more so. By the time Stebbing reached her late forties, this was precisely what she had done. Her promotion to a professorial chair at Bedford College, a women's college in London, in 1933 inspired articles in several of the national newspapers. Advocates of women's education had prevailed, normalised the presence of women among university students, researchers, and holders of academic posts. And yet, although Stebbing was highly successful, she was and remained in many ways marginalised as a woman in academia.

All of Stebbing's publications from the 1920s onwards belong squarely to the tradition of analytic philosophy. Her contributions to the field were significant, and most were in the 'core' areas of analytic philosophy: logic, philosophy of science, and metaphysics. Stebbing wrote the world's first accessible book on the new symbolic logic and its philosophy (Stebbing, 1930), and a book on philosophy of physics containing a careful, measured rebuttal of idealistic interpretations pushed by prominent physicists (Stebbing, 1937). She published at least one paper per year in one of the major philosophy journals for most of her career, an unusual output for a philosopher in the early twentieth century. Stebbing was a pioneer in the field of critical thinking, publishing accessible books on good reasoning with a political slant in an effort to persuade the general public to spot the flaws in fascism. She co-founded the journal *Analysis* and introduced logical positivism to the British philosophical scene a few years before Ayer did (Stebbing, 1933b). During her lifetime, Stebbing held a relatively prominent position among British philosophers.

Her books were favourably reviewed and her papers well-received. She was chosen for prestigious roles in academia in the UK and abroad. She held a visiting professorship at Columbia, delivered the British Academy's annual lecture, and served as President of the Aristotelian Society. Nevertheless, she faced obstacles which her male counterparts did not have to contend with. She was turned down for a professorial chair at Cambridge because she was a woman at a time when Cambridge did not allow women to be members of the University. As a lecturer at a women's college, she had a high teaching load which was spread across most areas of philosophy. Women's colleges being underfunded and understaffed, her teaching load did not lessen after her promotion to Professor. Having been raised as a girl with a disability in the Victorian era, Stebbing had not received the rigorous training in classics and the exact sciences which her male counterparts took for granted. She had to embark on a self-education project in physics and its philosophy in her twenties and thirties. Had she had access to the educational resources in science, mathematics, and classics open to her colleagues G. E. Moore, Bertrand Russell, A. N. Whitehead, and Ludwig Wittgenstein, her contributions to logic and philosophy of science might have been greater still.

Despite her impressive achievements, Stebbing has also received little attention to date from historians of analytic philosophy. History of analytic philosophy, as we will discover shortly (Section 1.1), has often focussed exclusively on those men it unironically calls the 'founding fathers' of analytic philosophy, Moore, Russell, and Wittgenstein, and its 'grandfather', Gottlob Frege, sometimes to the point of outright identifying early analytic philosophy with the works of these 'forefathers' and analytic philosophy generally with these men and their followers. Such a narrow focus leaves no room for female founders, even ones as pivotal as Stebbing, nor for early analytic philosophers who were not followers of the 'Great Men', but critics or independent thinkers, no matter how analytic their work was thematically. Although some scholarly work on Stebbing has appeared in recent years, such work has often either been primarily biographical or tended to concentrate on her relationship to the canonical 'founding fathers' (Beaney, 2003, 2016; Milkov, 2003). An informative intellectual biography by Siobhan Chapman (2013) supplies a rich array of facts about Stebbing's life and her correspondence

beyond what this short publication can cover but concentrates on Stebbing's life and on connections between her thought and contemporary thinking about ordinary language. By contrast, I will concentrate on giving a thorough yet accessible overview of Stebbing's positive, original contributions, including her views on the philosophy of logic (Section 2), her anti-idealist interpretation of the new Einsteinian physics (Section 3), her solution to the paradox of analysis (Section 4), and her pioneering work on critical thinking (Section 5). Although accessible, my overview of Stebbing's work is not in the style of a textbook or encyclopaedia piece. I defend original readings of Stebbing, take stances on interpretive issues, and provide support for the view that analytic philosophy should be regarded, not as the tradition of the followers and followers' followers of three or four Great Men but as a broad and varied movement with a variety of female and male ancestors, loosely unified by a focus on taking the methods and deliverances of the sciences as an inspiration for philosophy.

1.1 Early Analytic Philosophy, Stebbing's Role, and Historiography: Against the Great Men Narrative

Exactly when analytic philosophy began is a matter of dispute. Some historians argue it came into being as late as Wittgenstein's arrival in Cambridge to study with Russell in 1911 (Quinton, 2005: 28). Others, who consider Frege a founder, might say it began as early as his *Begriffsschrift* (Frege, 1879). More commonly, historians consider Frege an ancestor rather than a founder of analytic philosophy (e.g. Burge, 2005: 7–8). Historians of this school of thought generally take the first work of analytic philosophy to be 'The Nature of Judgement' (Moore, 1899), the paper which inaugurated the mini-movement of two research fellows, Moore and Russell, dubbed by them 'The New Philosophy'. The New Philosophy was a fervently anti-idealist project. It went in search of a realist alternative to the idealism common in late nineteenth-century British universities, most pressingly to supplant the system of their key opponent, the British Hegelian F. H. Bradley (1883, 1897). The New Philosophers at first maintained that a view of judgement as a binary relation between a mind and something independent of and distinct from that mind meant that the logical form of true statements about judgement

entailed the falsity of idealism (MacBride, 2018: 30–9). Moore and Russell’s early attempts (Moore, 1899; Russell, 1903), which boldly suggested that all words refer, led to a bloated ontology and difficulties explaining the difference between truth and falsity. Attempts to rectify these shortcomings led to the theory of descriptions and logical atomism. Moore, Russell, and, a few years later, Wittgenstein (1922), replaced the faulty view that all words refer with the more viable proposal that it is instead every true sentence which stands for something – namely, for a fact. Falsity is then readily explained as failure to correspond to a fact. But our ordinary-language sentences do not straightforwardly map onto one fact each. They admit of further, detailed analysis. Logical atomism presumed that our claims about everyday middle-sized objects – humans, dogs, cats, plants, houses, cities, mountains, tables, and so on – were, strictly speaking, claims about a complex plurality of micro-facts: their components in some arrangement. A statement about a wooden table is really about protons and electrons arranged into atoms, which are in turn arranged into molecules, arranged into cells, arranged into cellulose fibres, arranged into planks, and arranged into the familiar tabular shape. We analyse statements about organisms into their physical (and perhaps mental) atoms in a biological arrangement.

Stebbing’s most famous works were to focus on what exactly was involved in the process of analysis used in logical atomism and more generally in analytic philosophy. In several of her books and papers, she defended anti-idealism. It is readily apparent that her work concentrated on themes central to early analytic philosophy. Despite that fact, she has only rarely been considered a central figure in the analytic movement or a founder of analytic philosophy. Part of the explanation for her relative obscurity lies with gendered factors. Implicit and explicit sexist attitudes on the part of her contemporaries and of historians of analytic philosophy often led to a woman’s works being cited less often and taken less seriously (Janssen-Lauret, in press-a). Institutional sexism meant that faculty at women’s colleges had less visibility in the profession and less often succeeded at placing their former students in jobs where those students might promote the work of their former supervisors.

Stebbing has also been neglected because she has been given insufficient credit for originality. Ayer is typical in describing her as ‘very

much a disciple of Moore' (Ayer, 1977: 71). Several recent commentators also describe Stebbing several times over as a 'Moorean' (Milkov, 2003: 355, 358; Beaney, 2016: 242, 245–6, 248–50, 253–4; Beaney & Chapman, 2021: §§3–4). Although Stebbing certainly viewed Moore as a mentor figure, and regularly credited him with specific views she endorsed or with inspiring her to develop her own views on a given topic, she similarly gave credit to Russell and to Whitehead, on whose philosophy she wrote more papers than on Moore's (Stebbing, 1924, 1924–25, 1926). What's more, Stebbing's expertise stretched to technical areas of philosophy of which Moore never made any serious study. Moore's anti-idealism had originally grown out of rejecting the Kantianism he had found appealing as a young man and out of embracing the Platonism with which he had become familiar in his reading of the classics and his Moral Sciences degree. By contrast, Stebbing's anti-idealism found expression especially in her philosophical work on the new physics with its theory of relativity and subatomic particles. Unlike many of her contemporaries, Stebbing argued that the new physics did not obviously tell in favour of idealist or panpsychist interpretations. Stebbing also differed from Moore (but resembled Russell and Whitehead) in taking an interest in the philosophy of set theory. She discussed how modern mathematics affects ordinary-language discourse about numbers and the no-class theory (Stebbing, 1930: 141). Where Stebbing staked out a line in which she acknowledged the influence of Moore, as in her work on metaphysical analysis, she often made advances on his views, such as her sharp distinction between grammatical and directional analysis and her solution to the paradox of analysis (see Section 4). Stebbing further differed from Moore in the amount of attention she paid to usage in ordinary language. Chapman has presented an interpretation of Stebbing as making moves which foreshadowed modern discourse analysis and argumentation theory (Chapman, 2013: 172–86).

Stebbing, then, was also a clear representative of the branch of analytic philosophy which seeks to design a philosophy to fit the latest developments in mathematics and science. In this respect, she resembled Russell, Whitehead, or even W. V. Quine more than she resembled Moore. Stebbing is best seen as an original philosopher, a transitional figure who played a pivotal role in moving analytic philosophy on from its early

phase, where (at least in the UK) it was dominated by logical atomism, towards a middle period typified by more focus on ordinary language and a more holistic approach. To view her primarily as a Moorean is problematic because it denies her credit for originality, but also because it appears to fall prey to what I have called the Great Men narrative of analytic philosophy (Janssen-Lauret, in press-b). According to this historiographical narrative, analytic philosophy is the work of three or four particular men, their followers, and their followers' followers. Soames writes, 'analytic philosophy . . . is a certain historical tradition in which the early work of G. E. Moore, Bertrand Russell, and Ludwig Wittgenstein set the agenda for later philosophers' (Soames, 2003: xiii) and Beaney describes analytic philosophy as 'the tradition that originated in the work of Gottlob Frege (1848–1925), Bertrand Russell (1872–1970), G. E. Moore (1873–1958), and Ludwig Wittgenstein (1889–1951) and developed and ramified into the complex movement (or set of interconnected subtraditions) that we know today' (Beaney, 2013: 9).

Soames and Beaney's characterisations of analytic philosophy are formulated the way they are for a reason: to sidestep known issues with attempted definitions of 'analytic philosophy' which define it too narrowly, whether geographically as 'Anglo-American' philosophy, thematically as philosophy focussed on the analysis of language, or as 'critical' rather than speculative philosophy (Katzav & Vaesen, 2017). All of those candidate definitions leave out major figures in the history of analytic philosophy: German, Austrian, and Polish analytic philosophers, including Frege, Wittgenstein, Carnap, Tarski, Maria Kokoszynska, and Janina Hosiasson (Janssen-Lauret, 2022c); analytic metaphysicians like Russell, Stebbing, Moore, and Elizabeth Anscombe; and naturalistic system-builders such as Whitehead, Quine, Dorothy Emmet, and Mary Midgley.

But a definition of analytic philosophy as three or four men and their followers is overly narrow, too, not least because it misrepresents all women working on logic and philosophy of science in the early analytic period as either marginal figures who followed the Great Men or not analytic philosophers at all. The women whom I have dubbed 'grandmothers of analytic philosophy', including E. E. C. Jones and Christine Ladd-Franklin (Janssen-Lauret, in press-a, in in press-c),

Victoria Welby (Connell & Janssen-Lauret, 2022), and Grace de Laguna (Janssen-Lauret, in press-b) fall into the latter category. The ‘grandmothers’, similar in age to Frege or Whitehead rather than Russell or Wittgenstein, also resembled Frege in being originators of ideas – such as the sense-reference distinction (Jones, 1890) and inferentialism in logic and language which became influential only many years after the very early analytic period in which they lived. In recent work, Beaney has added Stebbing to his list as a fifth founder of analytic philosophy. While Beaney’s solution is welcome in that it makes room for a female founder, it does not extend to grandparents of analytic philosophy other than Frege – notably, no grandmothers and no other candidate grandfathers like Whitehead or Stout (MacBride, 2018: 115–52) – nor for other analytic philosophers and logicians of similar stature to Stebbing, such as Carnap, Ramsey, and Tarski, who might lay equal claim to co-foundership.

My alternative proposal is to view analytic philosophy not as the works of some handful of individuals and their followers but rather as a broad and varied movement with a variety of strands, each with a range of central and more peripheral figures, each with doctrines in some respects allied, in some respects in tension with some of the others. There is no neat and tidy set of plausible necessary and sufficient conditions for who counts as an analytic philosopher or brief definition of ‘analytic philosophy’. My model for the genesis of analytic philosophy is not that of the United States of America, a government of founding fathers gradually taking over land belonging to Indigenous peoples, or that of an exclusive gentlemen’s club with a manifesto which sets the agenda for its followers. My models are, rather, those of wider intellectual, political, or artistic movements, a looser coalition of ideas, not all of which point in the same direction or are wholly mutually compatible. Among the strands making up the early analytic philosophy movement are empiricism, advances in formal and mathematical logic since the nineteenth-century revolution in rigour – not just Frege’s but the algebraic calculi, too – the analysis of language, and new developments in physics and psychology. On that alternative conception of analytic philosophy, it has multiple grandfathers and grandmothers besides Frege and multiple founding fathers and mothers, too. One way to restore female early analytic philosophers

to their rightful place is to give up the hero narrative of the Great Men and embrace the ‘movement’ narrative of early analytic philosophy.

What I take to be most distinctive about early analytic philosophy is its quest to find a philosophy compatible with new developments in the sciences, especially the natural sciences and pure mathematics. Most narratives of the emergence of analytic philosophy to date have focussed more on early Russell and Moore’s opposition to idealism (e.g. Hylton, 1990; Candlish, 2007). But Frege, Russell, Whitehead, and other early analytic philosophers were also driven by reflection on the mathematical revolution in rigour and general relativity. These results upset traditional philosophical certainties about the infinite, parts and wholes – for example, the intuition that no whole is the same size as any of its proper parts – and the nature of space and time. Analytic philosophers held that philosophy should accept these results as true, set out to clarify and interpret them, and fit philosophical enquiry around them (MacBride & Janssen-Lauret, 2015). For some lesser-known early or proto-analytic philosophers, such as Welby, Stout, Ladd-Franklin, and de Laguna, reflection on new findings in the emerging science of psychology was also a major driving force. A further concern for many early analytic philosophers was opposition to idealism, although later generations of analytic philosophers contained some idealists. Critical analysis of linguistic meaning, reference, and truth became crucial items in the analytic philosopher’s toolbox as she set out to investigate the logical form of scientific truths and their collective ontological commitments. Stebbing, as we shall see, was an exemplar of analytic philosophy in her careful analysis of the logical forms of both physics and ordinary language. She was also typical of early analytic philosophy in her anti-idealism, although she, initially inspired by idealist philosophy as a student, was a reasonably sympathetic reader of idealism and anxious to represent idealist solutions fairly in her philosophy of physics. Lastly, Stebbing, sensitive to ordinary language and always clear that analytic philosophers must analyse sentences, can be seen as a transitional figure in the shift from logical atomism – which speaks of analysing propositions and tends to treat language as a ‘transparent’ (Russell, 1926: 118) medium to which we need not pay attention – towards the middle phase of analytic philosophy with its increasing focus on ordinary language.

1.2 Susan Stebbing: Life, Works, and Historical Context

Born in London in 1885 and orphaned in her teens, Susan Stebbing's pre-university education consisted largely of intermittent homeschooling. Stebbing was not merely a Victorian girl-child – already at a disadvantage with respect to educational opportunities – but also significantly disabled by Ménière's disease, an inner-ear disorder which causes attacks of dizziness and nausea and was not, at the time, treatable. Stebbing's disability, and probably her lack of rigorous training in the exact sciences and the classics, limited her choice of subjects at Girton College, where the logician E. E. Constance Jones, one of the grandmothers of analytic philosophy, had recently been appointed Mistress. Stebbing began by reading History. According to different sources (Wisdom, 1944: 283; Chapman, 2013: 11) she might have preferred either Classics or Natural Sciences. Perhaps her disability was incompatible with work in a laboratory. But there may also have been gendered pressures nudging her away from natural sciences and classics, which were, in the 1900s, among the most strongly male-coded fields in the academy.

The Victorian and Edwardian doctrine of gendered 'separate spheres' relegated women to the home, leaving the public sphere to men (this will be explored more in Section 2). Belief in separate spheres led many Victorians to oppose higher education for women altogether but disposed others to allow for higher education which did not require worldly knowledge potentially affecting women's moral respectability. As a result, late Victorian and Edwardian culture did not classify all of mathematics as strongly masculine. Applied mathematics, used in the physical sciences and engineering, fields associated with economic gain and the public sphere, was highly male-coded. But those who didn't wholly disapprove of women's education often considered pure mathematics, such as mathematical logic, algebra, and set theory, which did not draw on worldly knowledge, suitable for a woman to study. For example, Grace Chisholm's mathematics lecturers advised her to leave the very applied department in Cambridge to pursue her PhD in pure geometry in Germany (Jones, 2000). Christine Ladd-Franklin was encouraged to give up trying to persuade reluctant male physics professors to admit her to their research laboratories and instead pursue pure mathematics, which she could study at home (Janssen-Lauret, in press-a). Limited instruction in

the classics was another frequent obstacle for the early generations of female academics. Educated parents immersed their sons in Greek and Latin from early childhood but only rarely did the same for their daughters. Constance Jones recounted in her autobiography that the women of her family learnt only enough Latin to teach their sons until the boys went to school (Jones, 1922: 11). Even in the early 1940s, Mary Warnock and her fellow female classics students found ‘what a struggle it was for girls to keep their heads above water in Mods, an examination based on the assumption that boys had been learning Latin and Greek almost as soon as their education had started’ (Warnock, 2000: 39).

Towards the end of her history degree, Stebbing happened at random upon Bradley’s *Appearance and Reality* while browsing in the library. She was immediately gripped. Stebbing decided to stay at Girton for another year to read for the Moral Sciences Tripos, as Cambridge called its exams in philosophy. She studied philosophy with the logician W. E. Johnson, who introduced her to Aristotelian logic. But Cambridge did not allow women who passed their Tripos exams to graduate with their degrees and would not begin to do so until 1948, after Stebbing’s death. Stebbing accordingly moved to the University of London, which did award degrees to women.

In London, she completed a master’s thesis on truth, pragmatism, and the French voluntarism of Bergson, later published in the Girton series by Cambridge University Press (Stebbing, 1914). After her move to London in the early 1910s, Stebbing continued to teach for Girton on a casual basis, as well as for Newnham, another Cambridge women’s college. She also held visiting lectureships in London, at King’s College for Women, and Homerton, a teacher training college. Stebbing regularly spoke at the Aristotelian Society and published papers in its *Proceedings*. Several of these earliest publications of hers were sympathetic to idealism. In one meeting of the Society, Stebbing criticised Russell’s views on relations and, though also disinclined to follow Bradley all the way down the road to monism, defended the idealist doctrine of concrete unity (Stebbing, 1916–17). Some twenty-five years later, Stebbing recounted that, having presented her paper, she was confronted about the ‘muddles’ (a favourite word of hers) inherent in her claims by a man she later discovered to be G. E. Moore. Stebbing described feeling ‘alarmed’ at first