Essay review

Is Margaret Cavendish worthy of study today?

Jacqueline Broad

School of Philosophical, Historical and International Studies, Monash University, Melbourne,

VIC 3800, Australia.

Email address: Jacqueline.Broad@monash.edu

The natural philosophy of Margaret Cavendish: Reason and fancy during the Scientific Revolution


Before her death in 1673, Margaret Cavendish, the Duchess of Newcastle, expressed a wish that her philosophical work would experience a ‘glorious resurrection’ in future ages.¹ During her lifetime, and for almost three centuries afterwards, her writings were destined to ‘lye still in the soft and easie Bed of Oblivion’ (quoted in Sarasohn 2010, p. 180). But more recently, Cavendish has received a measure of the fame she so desired. She is celebrated by feminists, literary theorists, and historians. There are annual conferences organised by the International
Margaret Cavendish Society, and there have been several biographies, as well as essay collections, journal issues, scholarly editions, and anthologies devoted to her work. In terms of studies in the history and philosophy of science, however, Cavendish has yet to achieve her resurrection in full. While there have been journal articles and book chapters, and a 2001 edition of her *Observations*, there have been (until now) no book-length studies of her philosophy, and there is currently no modern edition of her other major work, the *Philosophical letters*. One wonders why this is the case. Could it be that Cavendish’s reputation as a philosopher does not merit resurrection? In a recent volume on ‘insiders’ and ‘outsiders’ in early modern philosophy, G. A. J. Rogers identifies at least three criteria for being considered ‘a really great philosopher’ today. The first is originality or a unique insight into a topic. The second is quality of argument or philosophical clarity, precision, and skill. The third is influence or some discernible impact upon one’s contemporaries and successors. To this list, we might also add enduring relevance or significance beyond a particular cultural-historical period. And so we might ask: does Cavendish fit these criteria? Even if she is not ‘a really great philosopher’ (and few philosophers are), is she worthy of study today? Does Cavendish matter?

This last question heads the conclusion of Lisa Sarasohn’s superb new work, the first monograph devoted entirely to Cavendish’s natural philosophy. Sarasohn goes part of the way toward explaining why Cavendish should be of interest to scholars in the field. As an historian of science and the author of a pioneering article on Cavendish’s feminism and natural philosophy (Sarasohn 1984), Sarasohn is well-qualified to write this book. The text itself is beautifully structured and expertly organised. It progresses through all of Cavendish’s philosophical works in chronological order, from the early ‘fanciful’ philosophical works, the *Poems, and fancies* (1653), and *Philosophical fancies* (1653), to the transitional *Philosophical and physical opinions* (1655), to her mature writings, the *Philosophical letters*. 
(1664), the *Observations upon experimental philosophy* (1666), and her final *Grounds of natural philosophy* (1668). Sarasohn explicates the central themes and concerns of each book, but successfully avoids repetition (a common fault in the texts themselves) by highlighting each work’s distinctive features. One chapter discusses Cavendish’s early atomist theory of matter, while the next examines subsequent refinements she made to her materialism; one focuses on her political thought, the next on her challenges to prominent immaterialists of the time; and then the narrative moves to her attack on the experimentalists, and then to the final statement of her philosophical position. The reader gains a strong understanding of Cavendish’s materialist philosophy as a whole, as well as its historical-intellectual context, the various developments in her thought (both subtle and great), and especially the gendered aspects of Cavendish’s approach to natural philosophy. We also get a strong sense of how Cavendish’s other works—the *Worlds olio* (1655), *Natures pictures* (1656), the *Orations* (1662), and the *Blazing world* (1666), in particular—complement and sometimes illuminate her philosophical pieces.

Notwithstanding all this great scholarship, a persistent critic might still respond: yes, but is she worthy of study today? Does Cavendish meet those criteria of originality, influence, quality of argument, and enduring relevance? In the conclusion, Sarasohn argues that Cavendish’s originality lies in the gendered perspective that she brings to seventeenth-century natural philosophy. She claims that Cavendish’s status as a woman and an outsider gave her a unique position from which to criticise early modern science. Her writings reveal that ‘the scientific revolution was not uncontested and that it was perhaps a woman who was best able to challenge the pretensions and power of the new science’ (Sarasohn 2010, p. 197). Cavendish ridicules the presumption of the new experimentalists and their microscopy. ‘She condemns their instruments,’ Sarasohn says, ‘and the knowledge they produce, as artificial monstrosities that ultimately reveal nothing but the futility of trying to penetrate nature’
(Sarasohn 2010, p. 195). She depicts members of the Royal Society, such as Robert Boyle and Robert Hooke, as arrogant fools, and even worse. I agree with Sarasohn’s general assessment of Cavendish’s critique—it is unique for its time. But it seems to me that Cavendish was terribly wrong about the futility of experimentation. Hasn’t experimental science achieved great benefits for humanity? Don’t we now have better health, longer life expectancy, and greater conveniences, both inside and outside the home, as a result of such research? Our persistent critic might point out that Cavendish’s opinions about the uselessness of microscopy and experimentation did not exactly ‘win out’ in the history of ideas.

Nevertheless, there are other highly original aspects to Cavendish’s natural philosophy that might be mentioned—her views about animals, for example. Sarasohn highlights the fact that Cavendish opposes the Cartesian view that animals are mere automata (Sarasohn 2010, p. 133). But perhaps she might have said more. In seventeenth-century texts, it is unusual to find arguments in defence of animals that sympathise with the creatures themselves. In Man and the natural world (1983), Keith Thomas observes that in the sixteenth century, arguments in favour of moral consideration for animals began to appear in England. During this time, there were numerous human-centred arguments for extending the terms of moral reference to animals; but prior to the eighteenth century, it was rare to see arguments that appealed to the feelings of animals. Some defences appealed to religious authority and the Biblical injunction for human beings to act as responsible caretakers of the natural world. The Puritan view was that human beings ought to be considerate toward animals because the brutes were innocent victims of the Fall of Mankind. Others presented arguments based on the belief that the hunting and torture of animals could have a disturbing effect on the human moral character. If one could beat a dog with indifference, it was said, then one might potentially develop habits of insensitivity toward human beings. As a general
rule, when writers justified the extension of moral consideration to animals, they tended to emphasise humanity’s religious obligations or the virtues of exercising compassion toward the ‘lower beings’. For many of the early defenders of animals, there was nothing morally objectionable about cruelty to animals *per se*, apart from its negative implications for human beings.

Margaret Cavendish is remarkable for being one early modern writer who advocates a change in popular attitudes on the basis of concern for the animals themselves. In her *Philosophical letters*, Cavendish argues that human prejudice against animals is the result of an excessive and unwarranted self-love. This opinion stems from her vitalist materialism, her theory that the entire created world is composed of a thorough intermixture of animate (‘rational’ and ‘sensitive’) and inanimate matter. Cavendish points out that since human beings share a common materiality with animals, there is nothing distinctive about human beings that makes them superior to the brute creation. In terms of their basic constituent substance, every part of nature is on an equal footing; every animal, vegetable, and mineral is composed of the same blend of rational, sensitive, and inanimate matter. Cavendish thus takes an unusual line of defence for the seventeenth century. Instead of citing anthropocentric reasons for extending moral consideration to animals, she appeals to the ‘sense’ and ‘reason’ of the creatures themselves.

In recent times, Peter Singer (1993) has maintained that the only qualifying condition for moral consideration should be an individual’s capacity for sentience, or the ability to experience pain. He argues that in our moral deliberations, the principle of equality—the idea that we ought to give equal moral weight to the like interests of all those affected by our actions—should be extended to all sentient creatures, regardless of their species. Likewise, Richard Dawkins (1993) has argued that the moral double standard we apply to human and non-human animals is entirely arbitrary, and the result of a ‘discontinuous mentality’. From
an evolutionary perspective, he claims, we should extend the same moral consideration to animals as we would to any distant relative. In her own time, Cavendish challenged the discontinuous thinking of writers such as René Descartes and the Cambridge Platonist Henry More. We think we are better than animals, she says, because we fail to recognise our common materiality and insist on seeing human beings as special or radically different from other creatures by virtue of their reason. But the sharp distinction we make between ‘us’ and ‘them’ is unjustified—we have no substantial grounds for thinking of ourselves as ‘petty gods’ in nature. Animals have their own share of sense and reason, even if they lack the power of speech; they warrant our respect. Although Cavendish does not specifically defend animals on the basis of their capacity to experience pain (as Singer does), she does attribute ‘sensitive perception’ to them, or the ability to experience sensations of a sort. We might therefore suggest that Cavendish anticipates present-day moral arguments concerning animals.

The case for Cavendish’s influence on her contemporaries is a little harder to make. In her book, Sarasohn repeats the common view that Cavendish’s philosophical ideas were ignored by others and subsequently forgotten. Cavendish herself complained that nobody would engage with her in print. But this was not strictly true. Cavendish seems to have influenced other philosophers to the extent that they developed their views in opposition to her. First, the Cambridge men Henry More and Ralph Cudworth both wrote against ‘hylozoic atheism’ in their publications. These men explicitly criticise Francis Glisson, a writer who also espouses a vitalist materialism in his *De natura substantiae energetica* (1672), but they might have had Cavendish in their sights as well. In his *True intellectual system* (1678), Cudworth rails against those ‘Well-wishers to Atheism’ who suppose that there are ‘Three several sorts of Matter in the Universe ... Self-existent from Eternity’. One editor claims that here he responds to Robert Fludd, but Cudworth’s references to ‘Senseless, Sensitive,
and "Rational" matter sound unmistakably like references to Cavendish’s theory. Cavendish sent Henry More a copy of her *Philosophical letters*, and in a letter to Anne Conway he reveals that he had looked into it. In his *Ad V.C. epistola altera* (1679), More associates Glisson’s views with Spinozism, but his critique of the atheistic implications of ‘the primeval life of matter’ might equally well apply to Cavendish’s philosophy too. Sarasohn also fails to mention S. Du Verger’s *Humble reflections* (1657), a 168-page response to Cavendish’s *Worlds olio*. Then there is Constantijn Huygens, an influential figure who corresponded with Cavendish over a period of fourteen years, from 1657 to 1671 (mentioned briefly in Sarasohn 2010, p. 148), and Joseph Glanvill, a fellow of the Royal Society (a man whom Sarasohn describes as ‘one of the few scholars who took Cavendish seriously’, p. 144). Sarasohn does not discuss these men in any detail and neither rates a mention in her Index. Yet there is evidence that they seriously engaged with Cavendish’s ideas. Manuscript sources in the Koninklijke Bibliotheek and the Koninklijk Huisarchief (The Hague), and the British Library (London), reveal that Cavendish helped Huygens eliminate explanatory hypotheses for the explosions caused by Prince Rupert’s Drops. And in his *Philosophical endeavour in the defence of the being of witches and apparitions* (1668), Glanvill responds to ‘a person of the highest honour’ with arguments for the existence of witchcraft and sorcery in the time of Christ. A quick comparison between his published remarks and a private letter to Cavendish (8 July 1667) in the *Letters and poems* shows that this honourable person was Cavendish herself. He formulated his ideas about witches in correspondence with her before publication. So there is a different story that might have been told here, one in which Cavendish’s philosophy was known and debated by prominent intellectuals of her time.

It is also testament to Cavendish’s argumentative skill that she made incisive critiques of the ‘really great philosophers’ of the age, such as Descartes and Thomas Hobbes. To appreciate her arguments against mechanism and mind-body dualism, her works need to be
placed in context, side-by-side with those of her contemporaries. On the whole, Sarasohn successfully achieves this historical-intellectual contextualisation of Cavendish’s thought. But there are a few other men whom Sarasohn might have discussed, such as William Harvey, Galileo, Henry Power, Thomas Stanley, and various ancient philosophers—figures who are explicitly mentioned in the *Philosophical letters* and the *Observations*. In her final paragraph, Sarasohn notes that historians of science are finally starting to turn their attention to Cavendish’s works and that her *Observations* ‘has just been added’ to the Cambridge Texts in the History of Philosophy series (Sarasohn 2010, p. 197). But the *Observations* was published in 2001—now a whole decade ago—and we still do not have a scholarly edition of the *Philosophical letters*. To appreciate Cavendish properly, we need a modern edition of this work—spelling out all the implicit references, the background debates, and so on—so that modern-day philosophers can evaluate Cavendish’s arguments on their own terms.

Finally, while Sarasohn provides a clear descriptive account of Cavendish’s philosophy, more work needs to be done to appreciate the significance of Cavendish’s thought today. In his *Rediscovery of the mind* (1992), John Searle points out that philosophers have been led astray by the Cartesian conceptions of mind and matter. We have accepted without question the view that ‘if something is mental, it cannot be physical; that if it is a matter of matter, it cannot be a matter of spirit; and if it is immaterial, it cannot be material’. Cavendish’s philosophy provides an alternative conceptual framework, or a different way of looking at these basic ontological categories. By contrast with Descartes, she did not see the categories of the ‘mental’ and the ‘physical’ as radically distinct or oppositional, and the mind-body problem is not the ‘unbridgeable gulf’ for her that it is for philosophers today. Sarasohn describes Cavendish’s theory of matter as ‘vitalist materialism’. This is accurate if we define vitalism as the theory that all the phenomena of life are explicable in terms of some vital principle. But Cavendish holds that ‘Every part
integrated into the whole not only has self-motion; it also has perception, reason, imagination, and passion’ (Sarasohn 2010, p. 119). In other words, Cavendish maintains that every constituent part of the natural world has mental properties. For this reason, her philosophy might also be usefully described as panpsychist. Why should that matter? What’s in a name?

Generally speaking, modern-day panpsychism is the view that every spatio-temporal thing has a mental aspect or an inner life. More narrowly, it is the view that the basic constituents or the ‘fundamental units’ of reality have a low-grade form of consciousness or sentience. In the past, commentators have described a philosophical position as panpsychist as a way of presenting a reductio against it. But in the narrow sense, panpsychism is not as absurd or as naive as its opponents suggest. For one thing, most panpsychists accept the commonsense view that inanimate things, like sticks and stones, are without consciousness. They maintain instead that the basic units that make up those sticks and stones have consciousness or sentience, *i.e.* that there is a truth about *what it is like* to be those units, or that they have some ‘dumb feeling’ about their existence. Sticks and stones might be made up of conscious units and yet lack consciousness themselves. Compound individuals such as human beings, however, are composed of conscious units arranged in such a way that they *do* form a single consciousness.

Cavendish appears to be familiar with traditional objections to panpsychism. In the seventeenth century, the view that every material thing has a form of consciousness was regarded as absurd and naive. Henry More considers it a *reductio* against panpsychism that this theory implies that even ‘stones in the street have sense’.

Cavendish does not deny the radical view that ‘a stone has reason, or doth partake of the rational soul of nature, as well as man doth’. She does, however, distinguish between different kinds of perception in nature. The stone does not have a human sense and reason, ‘but being a mineral, it has mineral sense and reason’. It is mistaken, therefore, to describe a stone as insentient. ‘Though a piece of
wood, stone, or metal may have a perceptive knowledge of man, yet it hath not a man’s 
perception; because it is a vegetable or mineral, and cannot have an animal knowledge or 
perception. Each material thing has its own kind of intelligence and perception according 
to its composition. ‘As there are several kinds of creatures, as elements, animals, minerals, 
vegetables, etc., so there are also several kinds of perceptions, as animal, vegetative, mineral, 
elemental perception.’ The perceptive faculties of human beings are nothing unique, or 
nothing over and above the constituent parts that make up all material objects. Like 
everything else in nature, human beings have perceptions ‘according to the composition of 
[their] parts’.

On this view, once it is granted that consciousness has always been present in the 
universe, the emergence of consciousness is no longer mysterious. The problem of 
extinction, or of how a sentient thing could emerge from complete insentience, is one of the 
key difficulties generated by the Cartesian concept of matter. Descartes’s concept of matter as 
insentient makes it inconceivable how purely physical brain processes could give rise to 
consciousness or mental states. On a related topic, Cavendish says that

I shall never be able to conceive, how, senseless and irrational atoms can produce sense 
and reason, or a sensible and rational body, such as the soul is; although he [Epicurus] 
affirms it to be possible: *It is true, different effects may proceed from one cause or 
principle; but there is no principle, which is senseless, can produce sensitive effects; 
or no rational effects can flow from an irrational cause.*

Cavendish observes that ‘material and immaterial are so quite opposite to each other, as it is 
impossible they should commix and work together, or act one upon the other’. Here it is 
useful to consider the distinction between type emergence and evolutionary or token
emergence. The property of concreteness, in the case of a brick, is a *token* of an already-existing type. Concreteness is simply a newly emergent property of the same ontological type as gravel, cement, and water (material things). Cavendish does not deny that a radically new *token* of the same ontological *type* can emerge, but she does deny the radical emergence of ontologically *unique* types. The emergence of consciousness or mental properties from insentient matter is not an instance of token emergence. It is a case of one ontological type (sentience) emerging from a radically different ontological type (insentience). Cavendish says that it is impossible that ‘any other new matter should be created besides this infinite matter out of which all natural things consist’.

If any new property were to emerge, according to Cavendish, ‘it were better to name it an alteration or change of motion, rather than a new generation’. In sum, though Cavendish’s panpsychism may sound strange to modern ears, it is useful for providing a different way of looking at the categories of mind and matter, as well as the problem of emergence.

On the whole, Sarasohn’s work is a lucid, intelligent, and timely addition to Cavendish scholarship and to early modern studies more generally. It touches on subjects that have only recently received attention in the literature, such as Cavendish’s epistemology, her ethics, her theology, and her medical theory. Sarasohn demonstrates a wonderfully impressive knowledge of Cavendish’s entire corpus. Few scholars can boast of such comprehensiveness. Though there is still some way to go, this book is a valuable contribution to the bringing about of Cavendish’s ‘glorious resurrection’ in the history and philosophy of science.
References


1 Quoted in Sarasohn 2010, p. 80. All references to Sarasohn’s work are hereafter cited parenthetically in the text.

2 See http://internationalmargaretcavendishsociety.org/

3 Perry (1918), Grant (1957), Jones (1990), Battigelli (1998), and Whitaker (2002).

4 Clucas (2003), and Cottegnies & Weitz (2003).


8 These are now too numerous to list here. But some of the most influential essays have been Clucas (2000), Hutton (1997a & 1997b), James (1999), Keller (1997), Rogers (1996), pp. 177-211, and Sarasohn (1984).


10 Cavendish (1664), p. 41.

11 Sarasohn claims that ‘Cavendish’s concept of nature, more than any other aspect of her natural philosophy, separated her from the rest of the scientific community in the late seventeenth century’ (Sarasohn 2010, p. 9). But there are notable similarities between the theories of Cavendish and Glisson, an early member of the Royal Society.

12 Cudworth (1678), p. 137.

13 Cudworth (1845), p. 204.


16 Glanvill (1668), p. 95.
See Cavendish (1678), pp. 137-42.

See Broad (2007).


Cavendish (2001), p. 73.

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