



Inner discourse as philosophical debate in Margaret Cavendish

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Abstract

Despite being the first woman to attend a meeting of the Royal Society, Margaret Cavendish (1623-1673) was denied membership. Her exclusion from these inner circles prevented her from participating in rigorous debates about her work and the work of her contemporaries. Although she was not invited into these conversations, she nevertheless entered them by imagining the kinds of objections her opponents would raise and publishing her responses in the form of an inner discourse. Inner discourse, here, describes a written dialogue where an author argues with themselves. This paper explores Cavendish's use of inner discourse across three genres: philosophical prose, letter writing, and science-fiction. Ultimately, I argue that inner discourse as a literary device, for Cavendish, serves not only as a way to overcome social barriers, but also as an argument, by demonstration, against members of the Royal Society who believed that natural philosophy should be done primarily through experiments.

Keywords

Margaret Cavendish, Royal Society, discourse, anti-experimentalism

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Introduction

Throughout the 17th century, funded societies for scientific study, like the Royal Society, began to form across Europe. Despite being the first woman to attend a meeting, Margaret Cavendish (1623-1673) was denied membership.¹ Cavendish often sent members of the Royal Society her philosophical works, hopeful for potential interlocutors, but she was ridiculed and for the most part, went unanswered.² After receiving copies of her work, Henry More, for example, wrote to Anne Conway that Cavendish “may be secure from anyone giving her the trouble of a reply.”³ This kind of exclusion largely prevented Cavendish from engaging in a practice at the center of scientific culture: debate. Behind closed doors, members of the Royal Society regularly exchanged and responded to criticism about their ideas. These debates allowed them to refine their views and defend their work. Without entry into this discourse, Cavendish was left to engage with herself. And so, she did.

To combat this exclusion, Cavendish employs a literary device I will refer to as ‘inner discourse.’⁴ By inner discourse, I mean to describe a form of written dialogue where an author argues with themselves. In particular, I am interested in Cavendish’s use of inner discourse in her philosophical works. Cavendish uses this technique in order to address other philosophers, refine her own views, and to respond to what she imagines critics will have to say about her philosophy. In “An Argumental Discourse”, for example, Cavendish slices her inner discourse into “Former” and “Latter” thoughts to answer possible objections to her anti-mechanistic picture of nature. Likewise, in the *Philosophical Letters*, Cavendish directly addresses the work of Thomas Hobbes, René Descartes, Jean Baptiste van Helmont, and Henry More through a correspondence between herself and an imagined female interlocuter. Finally, *The Blazing World* features a debate about the use of artificial tools like microscopes in the study of natural philosophy between the Empress, who represents Cavendish, and the Bear-men citizens, who represent the Royal Society. This

¹ Women were denied membership from the Royal Society until 1945. “Groundbreaking women of science celebrated”, *The Royal Society*, 8 March 2017, <https://royalsociety.org/news/2017/03/28-groundbreaking-women-of-science-celebrated/>.

² Cavendish did receive letters from Kenelm Digby, Walter Charleton, and Henry More. However, none of these authors engaged with her philosophy in their letters. “Margaret Cavendish (1623-1673). Letters from Scholarly Contacts”, *Project Vox*, <https://projectvox.org>.

³ Sarah Hutton and Marjorie Hope Nicolson, eds., *Conway Letters: The Correspondence of Anne, Viscountess Conway, Henry More, and their Friends 1642-1684* (Oxford: Oxford University Press, 1992), 262.

⁴ Expanding West’s interpretation, this contribution provides an account of Cavendish’s view of philosophical discourse which operates as a rebuttal to experimental philosophers such as Robert Hooke. See Peter West, “Margaret Cavendish and the Power of Debating with Yourself”, *Aeon/Psyche*, March 2022, <https://psyche.co/ideas/margaret-cavendish-and-the-power-of-debating-with-yourself>.

paper examines each case of inner discourse. I begin by outlining what Cavendish takes to be the essential features and aims of proper philosophical discourse. In the following three sections, I look at how Cavendish employs inner discourse in each text named above. Each iteration, I argue, satisfies Cavendish's own conditions for proper discourse. In the final section of the paper, I argue that inner discourse, for Cavendish, serves not only as a way to overcome social barriers and participate in rigorous philosophical debate, but also as an argument, by demonstration, against members of the Royal Society who believed that natural philosophy should be done primarily through experimentation.

Proper discourse

In *Observations Upon Experimental Philosophy*, Cavendish defines discourse as “a rational enquiry into the cases of natural effects”.⁵ The aim of philosophical discourse, according to Cavendish, is to discover truths about the natural world by examining the effects we observe in nature. Cavendish is explicit that this investigation can be done with oneself. She explains, “for discourse is as much as reasoning with ourselves; which may very well be done without speech or language, as being only an effect or action of reason”.⁶ *Inner discourse* is a written presentation of an author's reasoning with themselves in this way. Inner discourse does not require the presence of another opponent or the use of speech. Discourse can be done ‘without speech or language’ in the sense that it can be done entirely in one's mind. This picture of discourse echoes Plato's definition of thinking in the *Theaetetus*: thinking is “a talk which the soul has with itself about the objects under its consideration [...] It seems to be that the soul when it thinks is simply carrying on a discussion in which it asks itself questions and answers them itself, affirms and denies”.⁷ Similarly, Cavendish describes discourse as “an arguing of the mind”.⁸ Interestingly, as Gareth Matthews notes, despite writing many dialogues, Plato did not write an inner dialogue between the soul and itself.⁹ Cavendish, on the other hand, regularly employed the form of inner discourse in her philosophical writings.

The marker of any proper discourse, for Cavendish, is the extent to which the activity leads its participants closer to the truth. Cavendish explains that while our knowledge is limited and “we are all but guessers,” the person “that brings the most probable and

⁵ Margaret Cavendish, *Observations Upon Experimental Philosophy*, ed. by Eileen O'Neill (Cambridge: Cambridge University Press, 2001), 14.

⁶ *Ibid.*

⁷ Plato, *Theaetetus*, trans. M.J. Levett (Indianapolis: Hackett Publishing, 1992), 189e-190a.

⁸ Cavendish, *Observations*, 14.

⁹ See Gareth B. Matthews, “Inner Dialogue in Augustine and Anselm”, *Poetics Today* 28, no. 2 (2007): 283-302. doi: <https://doi.org/10.1215/03335372-2006-023>.

rational arguments, does come nearer to truth”.¹⁰ Cavendish is skeptical about our ability to come to any certain knowledge about the natural world.¹¹ At best, she says, we can have probable knowledge where something is very likely to be true although it is not certainly true. Cavendish’s commitment to probabilism corresponds closely with her emphasis on the importance of proper discourse. As Emma Wilkins explains, “One of the most appealing aspects of probabilism was that it allowed freedom of discussion among natural philosophers. Opinions were not ‘right’ or ‘wrong’ they were merely more or less probable”.¹² For Cavendish, freedom of discourse among philosophers is crucial for progress in the study of natural philosophy as it is through rational arguments, with oneself and others, that we get closer and closer to the truth.

Throughout her work, Cavendish outlines the requirements of a proper discourse. In *World’s Olio*, Cavendish explains,

To speak rationally, is to ask proper questions, or to answer directly to what he is questioned in, for reason is to clear the understanding and to untie the knots that clear the truth; but to speak non-sense is to speak that which hath no coherence to any thing, when there is no words but may be compared to something.¹³

Rational discourse, on this picture, involves asking relevant questions and answering questions directly. The opposite of rational discourse, ‘non-sense,’ involves being incoherent in such a way that the words you employ have no clear meaning. The minimum requirement for any discourse, according to Cavendish, is that the participants know the meaning of the words they use. For this reason, “Parrots, or the like can onely repeat the words they are taught, but cannot discourse, because they know not what it signifieth”.¹⁴ In a proper discourse, then, participants must use terms they understand and importantly, clarify their terms if their meaning is not immediately clear. This often involves spelling

¹⁰ Cavendish, *Observations*, 269.

¹¹ On Cavendish’s probabilistic approach, see S. Lucas, “Variation, Irregularity and Probabilism: Margaret Cavendish and Natural Philosophy as Rhetoric”, *Early Science and Medicine* 8, no. 3 (2003): 227-257; E. Wilkins, “Margaret Cavendish and the Royal Society”, *Notes and Records: The Royal Society Journal of the History of Science* 68, no. 3 (2014): 245-260; and D. Boyle, “Margaret Cavendish on Perception, Self-Knowledge, and Probable Opinion”, *Philosophy Compass* 10, no. 7 (2015): 438-450. These authors show that several members of the Royal Society shared this view including Walter Charleton, Joseph Glanvill, and Robert Boyle.

¹² Emma Wilkins, “Margaret Cavendish and the Royal Society”, *Notes and Records: The Royal Society Journal of the History of Science* 68, no. 3 (2014): 255.

¹³ Cavendish, Margaret. *The Worlds Olio Written by the Right Honorable, the Lady Margaret Newcastle*. (London, 1655), in *Early English Books Online*. University of Michigan Library Digital Collections. <https://name.umd.umich.edu/A53065.0001.001>, 17. Original spelling is preserved.

¹⁴ *Ibid.*, 14. “Signifieth” here means “signifies”.

out philosophical jargon in plain language. Once a discourse begins, participants ask and answer direct questions in an effort to 'to untie the knots that clear the truth.'

Cavendish's emphasis on clarity goes hand in hand with her desire to remove barriers to reading philosophy. Cavendish often admits her own struggle in reading philosophical works that were not written in plain English. In an effort to remove this barrier for her own readers, Cavendish says she will try to write as plainly as possible. In *Observations*, Cavendish writes "To the Reader":

Those that fill their writings with hard words, put the horses behind the coach, and instead of making hard things easy, make easy things hard, which especially in our English writers is a great fault; neither do I see any reason for it, but that they think to make themselves more famous by those that admire all what they do not understand, though it be non- sense; but I am not of their mind, and therefore although I do understand some of their hard expressions now, yet I shun them as much in my writings as is possible for me to do, and all this, that they may be the better understood by all, learned as well as unlearned; by those that are professed philosophers as well as by those that are none.¹⁵

Cavendish criticizes writers who use philosophical jargon in what she believes is an effort to acquire fame by being difficult to understand. Instead, Cavendish says, they should be aiming to make 'hard things easy'. Emma Wilkins carefully shows that Cavendish shared this view with various members of the Royal Society including William Petty and Robert Boyle who called for natural philosophy to be written in plain English.¹⁶ Denise Tillery, however, argues that despite this shared belief, Cavendish's rationale behind her commitment to writing in a plain style differs from that of the Royal Society members. Tillery claims,

While she wants to allow her readers to enter the community of experimental science, she does not concern herself with whether they are following the rules [...] or whether they are interpreting her text correctly. She is primarily concerned with creating a connection between herself and her reader in order to win fame and to be as clear as possible so that readers will not give up in frustration.¹⁷

Tillery sees Cavendish's commitment to plain style as part of "her obsession with fame".¹⁸ While it is clear that Cavendish wanted her work to be read by as many readers as possi-

¹⁵ Cavendish, *Observations*, 12.

¹⁶ Emma Wilkins, "Margaret Cavendish and the Royal Society".

¹⁷ Denise Tillery, "'English Them in the Easiest Manner You Can': Margaret Cavendish on the Discourse and Practice of Natural Philosophy", *Rhetoric Review* 26, no. 3 (2007): 276.

¹⁸ *Ibid.*, 275.

ble, her commitment to writing plainly goes beyond her desire to be accessible to a wide audience or her focus on “her own glorification”.¹⁹ As seen above, Cavendish believes that rational discourse can lead philosophers closer to truths about nature. Without clarity, philosophers risk hindering the progress of their discourse towards truth. As we will see below, Cavendish often includes a request for clarity on the meaning of a term within the dialogue of an inner discourse. When this occurs, it is first to ensure that readers can interpret her text correctly and second, to demonstrate how participants of a proper discourse can progress towards a more probable opinion about the subject at hand. Although inner discourse would not be considered an instance of plain style, Cavendish adopts it as a rhetorical tool to demonstrate a philosophical discourse that promotes and conveys readability and clarity.

The effort, to ‘clear the truth’, must be, Cavendish believes, a shared project between participants. The shared aim of truth distinguishes proper discourse from the kind of discourse described by Cavendish in *The Blazing World* as the “Art of Logic”. In *The Blazing World*, the Empress listens to logicians engaging in the “Art of Logic”. Logic here primarily involves the use of syllogisms. The logicians begin their demonstration to the Empress with the following syllogism:

Every Politician is wise:
Every Knave is a Politician,
Therefore every Knave is wise.²⁰

Upon hearing this, a fellow logician “contradicted him” and said,

No Politician is wise:
Every Knave is a Politician
Therefore no Knave is wise.²¹

The demonstration continued until the Empress asked the logicians to stop. The “Art of Logic” that these men demonstrate, the Empress says, is

for the most part irregular, and disorders Men’s understanding more then it rectifies them, and leads them into a Labyrinth whence they’l never get out, and makes them dull and unfit

¹⁹ *Ibid.*, 276.

²⁰ Margaret Cavendish, *The Description of a New World, Called the Blazing-World, Written by the Thrice Noble, Illustrious, and Excellent Princesses, the Duchesses of Newcastle*, in *Early English Books Online Collections*, University of Michigan Library Digital Collections, <https://name.umdl.umich.edu/A53044.0001.001>, 58.

²¹ *Ibid.*

for useful employments; especially your Art of Logick, which consists onely in contradicting each other, in making Sophismes, and obscuring Truth, instead of clearing it.²²

Unlike proper discourse, the “Art of Logic” makes it difficult to achieve any clarity about a given subject. Those who employ syllogisms do not aim, Cavendish thinks, at truth. Instead, their aim is primarily to ‘contradict’ their opponent and in doing so, win the argument. Unlike the “Art of Logic”, proper discourse requires that participants prioritize discovering the truth over merely winning an argument or confusing their opponent. Cavendish is very concerned with the emotions of her readers in this respect. Cavendish asks her readers to abide by their “regular sense and reason” so that they are not ‘corrupted’ by “self-love or envy.”²³ A participant who is engaging sincerely in a proper discourse is not envious of their opponent or misled by their egotism. They do not prioritize ‘winning’ the argument. Instead, they aim only to discover the truth in collaboration with their partner. Importantly, for Cavendish, this kind of discourse can be done with oneself. The requirement to regulate one’s emotions in these ways, then, applies even when one is engaging in rational discourse alone.²⁴

Cavendish was not the first philosopher to write in the form of a dialogue with themselves. As Matthews argues, the first case of a philosophical work written as an inner dialogue is Augustine’s *Soliloquies and Immortality of the Soul*.²⁵ One might also think of the meditative genre, a popular style of writing in the medieval and early modern periods where an author engages in spiritual exercises with themselves to “rethink their beliefs in order to begin the arduous journey towards truth and enlightenment.”²⁶ Cavendish’s use of inner discourse, however, differs from these kinds of work in, at least, three ways. First, Cavendish’s use of inner discourse appears in multiple genres including poetry, letter writing, and fiction. Second, as we will see below, Cavendish primarily uses the form of inner discourse to personify her philosophical opponents. This is a significant choice in the context of her exclusion from discourse with these figures in her own life. Third, the aim of Cavendish’s inner discourse is to discover *probable* truths regarding subjects in natural philosophy. In contrast, the aim of Augustine’s *Soliloquies* is self-knowledge, knowledge of

²² *Ibid.*, 58-59.

²³ Cavendish, *Observations*, 42.

²⁴ Contra D. Tillery, “‘English Them in the Easiest Manner You Can’: Margaret Cavendish on the Discourse and Practice of Natural Philosophy”, this interpretation of Cavendish places her views on the role of emotions in relation to the acquisition of knowledge much closer to the views of the Royal Society.

²⁵ Matthews, “Inner Dialogue in Augustine and Anselm”, 285.

²⁶ Christia Mercer, “Descartes’ debt to Teresa of Ávila, or why we should work on women in the history of philosophy”, *Philosophical Studies* 174, 10 (2017): 25-43.

God and the soul, and ultimately, salvation.²⁷ Likewise, Augustine's *Confessions* and many texts of the meditative genre, including Teresa of Ávila's *Interior Castle* and Descartes' *Meditations*, aim to "find ultimate truth and attain enlightenment" in a pursuit that centers on the acquisition of self-knowledge.²⁸ As noted above, Cavendish does not believe we can come to any certain or ultimate truths. Additionally, Cavendish's aim in using inner discourse is not to pursue self-knowledge. Instead, she is concerned with acquiring probable truths regarding subjects in natural philosophy. Although Cavendish is not the first to explore philosophical questions within the form of an inner dialogue, her use of inner discourse in her philosophical works is distinct. The remainder of the paper will explore how Cavendish employs inner discourse in her written work to simulate debates between herself and her opponents.

Former Thoughts vs. Latter Thoughts

Before the main text of the *Observations Upon Experimental Philosophy*, Cavendish includes a section entitled "An Argumental Discourse". In "An Argumental Discourse," Cavendish's 'Former Thoughts' and 'Latter Thoughts' engage in proper inner discourse where they debate the views that Cavendish argues for later in the main text. While Cavendish's 'Former Thoughts' put forth and defend her own position, Cavendish's 'Latter Thoughts' are skeptical and oppose her views.²⁹ Cavendish describes how this discourse occurred:

When I was setting forth this book of *Observations upon Experimental Philosophy*, a dispute chanced to arise between the rational parts of my mind concerning some of the chief points and principles in natural philosophy; for, some new thoughts endeavouring to oppose and call in question the truth of my former conceptions, caused a war in my mind.³⁰

²⁷ Augustine, in *Soliloquies*, tells Reason he wants "to know God and the soul" and "nothing more". Augustine, *Soliloquies and Immortality of the Soul*, trans. Gerard Watson (Warminster, U.K.: Aris and Phillips, 1990), 1.2.7.

²⁸ Christia Mercer, "The methodology of the Meditations: tradition and innovation", in David Cunning, *The Cambridge Companion to Descartes' Meditations*. (New York: Cambridge University Press., 2014): 28. Mercer explains, "beginning with Augustine's *Confession* and persisting through the early seventeenth century, the main goal of spiritual meditation is a reorientation of the self so that the exercitant is prepared for illumination" (33).

²⁹ Notably, the "Argumental Discourse" is not the only dialogue written by Cavendish where different parts of her mind argue. See, for example, M. Cavendish, *Grounds of Natural Philosophy: Divided into Thirteen Parts: With an Appendix Containing Five Parts* (London, 1668) In *Early English Books Online Collections*. University of Michigan Library Digital Collections. <https://name.umd.umich.edu/A53045.0001.001>, 291-311.

³⁰ Cavendish, *Observations*, 23.

Cavendish's Former Thoughts and Latter Thoughts, in their warring, perform a proper discourse as described above.³¹ They discuss a variety of topics that are eventually spelled out in *Observations* including Cavendish's theory of matter, self-motion, knowledge, and infinity.

In this dialogue, the Former and Latter Thoughts satisfy the standards of proper discourse. First, the dialogue itself is a process of asking and answering questions. For example, Cavendish writes,

My Latter Thoughts desired to know, whether motion could be annihilated?

The former said, No: because nature was infinite, and admitted of no addition nor diminution; and consequently, of no new creation nor annihilation of any part of hers.

But, said the latter, If motion be an accident, it may be annihilated.

The former answered, They did not know what they meant by the word "accident."

The later said, that an accident was something in a body, but nothing without a body.

If an accident be something, answered the former, then certainly it must be body; for there is nothing but what is corporeal in nature.³²

The dialogue begins with a direct question from the opposition. That question is then given a direct answer and a justification. This structure is repeated throughout the discourse. Importantly, when the meaning of a term is unclear to a participant, like "accident" is here, the participant does not continue the discourse until they gain clarity on what was meant by the term. Additionally, while sometimes the two thoughts come to an agreement, other times, their disagreement remains. In fact, the discourse between the Former and Latter Thoughts ends in disagreement. The aim of the discourse, as for every proper discourse, is not to show how every objection is resolved by the Former Thoughts and so Cavendish herself. Rather, the goal is to get closer to certainty. It is important that participants in a proper discourse admit when they are not convinced by their opponent's view or when they cannot answer a criticism about their own view. If the priority for the participant is simply to end or win the argument, they may compromise the kind of sincerity that is required in a proper discourse. As seen in the "Art of Logic", such an approach will only further obscure the truth.

Cavendish's use of inner discourse in "An Argumental Discourse" allows her to simulate debates with thinkers who would not, or could not, engage with her during her lifetime.

³¹ Importantly, the division of the mind in this way is not a metaphor for Cavendish. Cavendish argues that like any other body, the mind, being material, is made of parts. For an analysis of how Cavendish argues for this view of the mind, see Colin Chamberlain, "The Duchess of Disunity: Margaret Cavendish on the Materiality of Mind", *Philosophers' Imprint* 24, no. 7 (2024): 1-18. doi: <https://doi.org/10.3998/phimp.2503>.

³² Cavendish, *Observations*, 36.

The Latter Thoughts take on the persona of many prominent male philosophers including Aristotle, Plato, Descartes, Hobbes, More, and Boyle. In the example above, the Latter Thoughts serve, in part, to represent Plato. Cavendish was a materialist who endorsed the plenum and believed that Nature was composed of infinite, self-moving, rational matter. The Former Thoughts, in this part of the discourse, serve to defend this view. If an accident is to be anything at all in nature, the Former Thoughts say, it must be corporeal because everything in nature is material. Cavendish takes thinkers like Plato to be defending the opposing view which says qualities found in nature, like colors, for example, “are incorporeal, because they are accidents”.³³ The Latter Thoughts voice this view when they define an accident as “something in a body, but nothing without a body”.³⁴ In a chapter of the *Observations* dedicated to addressing Plato’s views, Cavendish responds to this same argument saying, “I answer: If qualities be incorporeal, they do not belong to nature: for, since the principle of nature is matter, all that is natural, must also be material or corporeal; and therefore all natural qualities or accidents must of necessity be corporeal”.³⁵ This response mimics the argument made by the Former Thoughts in “An Argumental Discourse” when they say “If an accident be something, answered the former, then certainly it must be body; for there is nothing but what is corporeal in nature”.³⁶ Throughout “An Argumental Discourse”, Cavendish teases the views she later defends in the *Observations*. She uses the Latter Thoughts to voice the opinions of her opponents, like Plato, while the Former Thoughts allow her to give a brief defense of her position. A reader can discover who the Latter Thoughts are meant to represent by looking for the same argument in the *Observations* where Cavendish often names her opponents.

Cavendish uses the Latter Thoughts to represent more than one figure at a time. In the same bit of dialogue above, Cavendish is using the Latter Thoughts to represent Plato and mechanists like Descartes who believed motion was transferable between bodies. Cavendish’s criticism of this view relies, in part, on her belief that everything in nature is material. If motion is material, then a transfer of motion from one body to another would be a transfer of the matter of one body to another.³⁷ Cavendish found this implication absurd. Bodies did not, on her view, transfer motion. Instead, bodies moved by way of their own self-motion in response to the actions of the bodies around them.³⁸ Both this anti-mechanist view of nature and her criticism of Plato’s use of ‘accidents’ rely on Cavendish’s materialism which says that everything in nature, including qualities and motions, is corporeal.

³³ *Ibid.*, 253.

³⁴ *Ibid.*, 36.

³⁵ *Ibid.*, 253.

³⁶ *Ibid.*, 36.

³⁷ *Ibid.*, 235.

³⁸ For a more detailed account of Cavendish’s view of motion, see Alison Peterman, “Margaret Cavendish on Motion and Mereology”, *Journal of the History of Philosophy* 57, no. 3 (2019).

When the Former Thoughts say, ‘there is nothing but what is corporeal in nature’, they are articulating Cavendish’s commitment to materialism. This commitment distinguishes her view from multiple figures including Plato and Descartes. As such, the Latter Thoughts represent more than one voice in this debate. Her use of inner discourse in the brief bit of dialogue seen above not only allows Cavendish to emphasize a central tenant of her view, but also allows her to identify and argue against multiple of her main opponents at once.

Cavendish’s desire for discourse about her philosophical views is particularly explicit in “An Argumental Discourse”. At the end of the dialogue, the Latter and Former Thoughts agree to refer “to the arbitration of the judicious and impartial reader”.³⁹ Cavendish explains to the reader that the disputing parts of her mind desire “the assistance of [the reader’s] judgement to reconcile their controversies, and, if possible, to reduce them to a settled peace and agreement”.⁴⁰ Cavendish uses “An Argumental Discourse” to demonstrate how reasoning in one’s own mind can look and to ask her readers, “Will you discourse with me?” She concludes “An Argumental Discourse” writing,

And now, since it is your part, Ingenious Reader, to give a final decision of the case, consider well the subject of their quarrel, and be impartial in your judgement; let not self-love or envy corrupt you, but let regular sense and reason be your only rule.⁴¹

Cavendish asks her readers to engage with her work in the way a good participant of a proper discourse engages by avoiding egotism and using regular sense and reason. Her hope is that a reader of this text will become a third participant in the discourse. Cavendish’s use of inner discourse in “An Argumental Discourse” allows her to present her own views, to participate in debates with many major philosophers, and to invite others to engage in her work.

Philosophical Letters

Cavendish’s use of inner discourse as a literary form appears in, at least, three different genres of her writing: philosophical prose, letters, and fiction. This section considers its use in the second.⁴² By the 17th century, the epistolary form had become an established genre

³⁹ *Ibid.*, 42.

⁴⁰ *Ibid.*, 23.

⁴¹ *Ibid.*, 42.

⁴² The *Philosophical Letters* is not the only fictional correspondence published by Cavendish. In the same year as the *Philosophical Letters*, Cavendish published the *Sociable Letters*. These letters also address a fictional Madam. Interestingly, in a poem preceding the letters, entitled, ‘Upon Her Excellency the Authoress,’ Cavendish writes “This Lady only to her self she Writes/ And all her Letters to her self Indites”. Here, Cavendish seems to acknowledge that she is writing in

of philosophical writing.⁴³ Think, for example, of the importance of Princess Elizabeth's letters with Descartes.⁴⁴ As O'Neill points out, Cavendish's own collection of correspondence, published posthumously by her husband, reveals that she "had not attained general recognition by the scholarly community" in this way.⁴⁵ It is no surprise, then, that Cavendish chose to use this genre as a vehicle for her philosophy. In the *Philosophical Letters*, Cavendish addresses a woman interlocuter named "Madam" who has sent her the works of René Descartes, Thomas Hobbes, Henry More, and Jean Baptiste van Helmont.⁴⁶ The Madam, according to Cavendish's first letter, has asked Cavendish to review their work and to explain where Cavendish's views differ from these thinkers and why. In addressing these four men, Cavendish inserts herself into the conversation without an invitation. To be clear, Cavendish did receive letters from Thomas Hobbes and Henry More.⁴⁷ However, these letters simply express their gratitude for receiving copies of Cavendish's work. They

the form of an 'inner discourse'. See M. Cavendish, "CCXI sociable letters written by the thrice noble, illustrious, and excellent princess, the Lady Marchioness of Newcastle", in *Early English Books Online*, University of Michigan Library Digital Collections, <https://name.umdl.umich.edu/A53064.0001.001>. For more on Cavendish's *Sociable Letters*, see James Fitzmaurice, "Autobiography, Parody, and the *Sociable Letters* of Margaret Cavendish", in *A Princely Brave Woman: Essays on Margaret Cavendish, Duchess of Newcastle*, ed. by Stephen Clucas (Burlington, VT: Ashgate, 2003) 69-86.

⁴³ Boyle notes that the publication of letters to fictional interlocuters was also not uncommon in the 17th century. See Deborah Boyle, ed., *Philosophical Letters, Abridged* (Indianapolis: Hackett Publishing, 2021).

⁴⁴ Importantly, Princess Elizabeth's side of the letters was not published until 1879. See Lisa Shapiro, "Elisabeth, Princess of Bohemia", *The Stanford Encyclopedia of Philosophy* (2021).

⁴⁵ Eileen O'Neill, "Introduction", *Observations upon Experimental Philosophy* (Cambridge: Cambridge University Press, 2001), xvii.

⁴⁶ Cavendish also addresses, although not to the same extent, the work of other philosophers including Aristotle, Galileo, Joseph Glanvill, Walter Chareltan, and Robert Boyle.

⁴⁷ Although Thomas Hobbes worked as a tutor and secretary for the Cavendish family, Cavendish denies any close relationship between them. In an epilogue to *Philosophical and Physical Opinions* (1655), for example, Cavendish says she did not speak even twenty words to Hobbes and did not discuss philosophy with him. The only question she ever asked him, Cavendish says, is whether he would join her for dinner while she was on a visit to London. See M. Cavendish, *Philosophical and Physical Opinions Written by her Excellency, the Lady Marchioness of Newcastle*, printed by J. Martin and J. Allestry, 1655, ed. by Lisa Walters, The Digital Cavendish Project, <http://digitalcavendish.org/complete-works/philosophical-and-physical-opinions-1655/>. Sarah Hutton provides a detailed account of Cavendish and Hobbes' intellectual relationship. Hutton shows that although Cavendish denied having any kind of relationship with Hobbes, she was well acquainted with his philosophical opinions. See Sarah Hutton, "In Dialogue with Thomas Hobbes: Margaret Cavendish's Natural Philosophy", *Women's Writing* 4, no. 3 (1997): 421-432.

do not, importantly, engage with the content of the work.⁴⁸ Cavendish's *Philosophical Letters* are what she imagines a philosophical correspondence with these figures might look like had they taken her more seriously.

Cavendish employs the form of inner discourse in the *Philosophical Letters* in two main ways: first, she performs an inner discourse with her interlocuter as she raises objections to herself through the character of the fictional Madam. This use of inner discourse differs from that in "An Argumental Discourse" not only in genre but also in presentation. While the arguments of both the Former and Latter Thoughts are present in the written text, the Madam's letters are not included in the collection. Instead, the collection consists of letters from Cavendish to the Madam. We come to know the Madam's objections to Cavendish by Cavendish's characterization of the Madam's concerns. For example, while we never see a letter written by the Madam questioning Cavendish's claim that nature is eternal, Cavendish begins one of her letters writing "Madam, It seems you are offended at my Opinion, that nature is Eternal without beginning."⁴⁹ The letters take the form of a proper discourse as Cavendish restates the question or criticism posed by the Madam and answers directly. As in "An Argumental Discourse", Cavendish also clarifies her terms when she believes the Madam, or a reader of the correspondence, may misunderstand her meaning. Cavendish is explicit about the standards of this imagined discourse. Cavendish writes, to her interlocuter,

I humbly desire the help and assistance of your Favour, that according to that real and intire Affection you bear to me, you would be pleased to tell me unfeignedly, if I should chance to err or contradict but the probability of truth in any thing; for I honor Truth so much, as I bow down to its shadow with the greatest respect and reverence.⁵⁰

The responsibility of the Madam is that of any participant in a proper discourse: to aim at the truth and to tell their opponent when they have strayed from reason.⁵¹

⁴⁸ Constantijn Huygens did correspond with Cavendish briefly and Joseph Glanvill appears to have taken her work seriously. For a more extensive discussion of the reception of Cavendish in her own time, see E. O'Neill, "Introduction", *Observations Upon Experimental Philosophy*, ed. by Eileen O'Neill (Cambridge: Cambridge University Press, 2001), x-xxxvii.

⁴⁹ Margaret Cavendish, *Philosophical Letters, or, Modest Reflections upon Some Opinions in Natural Philosophy Maintained by Several Famous and Learned Authors of This Age, Expressed by Way of Letters* (London, 1664), in *Early English Books Online*, University of Michigan Library Digital Collections. <https://name.umd.umich.edu/A53058.0001.001>, 13.

⁵⁰ *Ibid.*, 4.

⁵¹ As Broad notes, the exchange between Cavendish and the Madam "seem to represent Cavendish's ideal of an intellectual exchange: they offer a free and liberal discussion of ideas governed by a spirit of open inquiry, kind criticism, and sympathetic friendship". In other words, the letters exemplify a proper discourse. Jacqueline Broad, "Cavendish, van Helmont, and the Mad Raging Womb", *The New Science and Women's Literary Discourse*, 69-87 (2011): 54.

The second form of inner discourse in *Philosophical Letters* occurs as Cavendish engages with the texts of the authors she is examining. As she addresses their work, Cavendish presents criticisms of their views and imagines the kinds of objections they might have to her arguments. The purpose of the *Philosophical Letters*, Cavendish says, is to better clarify her own views by comparing them to the opposing views of her contemporaries. As with any proper discourse, in the *Philosophical Letters*, Cavendish aims to get closer to the truth by examining her own reasoning. Like “An Argumental Discourse”, the *Philosophical Letters* compliment another philosophical text, *Philosophical and Physical Opinions*, which was published a year earlier. Cavendish explains,

I considered with my self, that it would be a great advantage for my Book called *Philosophical Opinions*, as to make it more perspicuous and intelligible by the opposition of other Opinions, since two opposite things placed near each other, are the better discerned.⁵²

In explaining her motivation for writing the letters, Cavendish emphasizes the importance of facing opposition to gain clarity on one's own views. This is the kind of opposition the men of exclusive scientific circles like the Royal Society regularly enjoyed as they presented their work and received feedback during meetings. Cavendish did not have access to this kind of opposition and as a result, could not improve her own work in this way. Instead, she had to imagine the discourse to benefit from an examination of her views against the views of others.

Throughout the *Philosophical Letters*, Cavendish works her way through the major works of Thomas Hobbes, René Descartes, Jean Baptiste van Helmont, and Henry More. For each of these figures, Cavendish begins many of her letter by quoting the part of their text she takes issue with and then explaining her disagreement. For example, she begins with Hobbes' *Leviathan*:

MADAM,

Your Authours opinion is, that *when a thing lies still, unless somewhat else stir it, it will lie still for ever; but when a thing is in motion, it will eternally be in motion, unless somewhat else stay it; the reason is, saith he, because nothing can change it self*; To tell you truly, Madam, I am not of his opinion, for if Matter moveth it self, as certainly it doth, then the least part of Matter, were it so small as to seem Individable, will move it self... that Motion should proceed from another exterior Body, joyning with, or touching that body which it moves, is in my opinion not probable.⁵³

⁵² Cavendish, *Philosophical Letters*, 2.

⁵³ *Ibid.*, 21.

Here, Cavendish defends the view that nature consists entirely of self-moving matter. As we saw in the “Argumental Discourse”, Cavendish argues against the mechanistic view that bodies move by a transfer of motion from another body. Instead, all bodies have self-motion and ultimately, move themselves. As a participant in a proper discourse, Cavendish does not try to address the entirety of Hobbes’ philosophy. Instead, Cavendish directly responds to a single idea made by the author. This allows for Cavendish to be precise in exactly where their views differ. Cavendish’s approach here reflects the requirement that participants in a proper discourse ask particular and direct questions. Unlike “An Argumental Discourse”, here, Cavendish appeals to the written text of the figures she addresses. As a result, the discourse in the *Philosophical Letters* between Cavendish and the authors is somewhat less imaginative than the discourse of “An Argumental Discourse” in that Cavendish is sometimes able to use the author’s own words. Still, Cavendish is left to imagine how they might respond to her criticism. Once Cavendish goes beyond direct quotes from the author’s work, the discourse is entirely imagined. The use of inner discourse, in this text, serves explicitly as a way for Cavendish to benefit from debating with opponents who were not willing to engage in a philosophical discourse with her in real life. The imagined discourse allows Cavendish to refine own her philosophical positions as she clarifies her differences with the views of her opponents.

In the final section of the *Philosophical Letters*, Cavendish encourages her interlocuter to continue to study natural philosophy as it is the most honorable way to spend one’s time. Cavendish writes,

MADAM,

I Perceive, you take great delight in the study of Natural Philosophy, since you have not onely sent me some Authors to peruse, and give my judgment of their opinions, but are very studious your self in the reading of Philosophical Works: and truly, I think you cannot spend your time more honourably, profitably, and delightfully, then in the study of nature... I must beg leave to tell you, first, that some (though foolishly) believe, it is not fit for Women to argue upon so subtil a Mystery: Next, there have been so many learned and experienced Philosophers, Physicians, and Anatomists, which have treated of this subject, that it might be thought a great presumption for me, to argue with them, having neither the learning nor experience by practice which they had.⁵⁴

It is significant that Cavendish chose to simulate correspondence about natural philosophy with a fictional woman despite, as she says, the fact that some believed women were not fit to do this kind of work. Cavendish could have easily written to a fictional male inter-

⁵⁴ *Ibid.*, 414-415.

locuter. Instead, she chose to demonstrate the kinds of philosophical arguments women were capable of by writing in the form of an inner discourse.

The Blazing World

Cavendish's *The Description of a New World, Called the Blazing World* is a science-fiction text that tells the story of a young woman who escapes a kidnapping, enters a new world, and becomes a powerful Empress. Importantly, *The Blazing World* was published alongside the *Observations* in 1666 and 1668. As Eve Keller notes, "The fundamental difference between the *Observations* and *The Blazing World* is less one of argument than of readerly experience [...] *The Blazing World* dramatically plays out the logic of the *Observations*."⁵⁵ In the first part of the story, the Empress spends a long time speaking with the citizens of the new world about their respective work. Each citizen is a mix of some animal and man and has a designated kind of work depending on what type of creature they are. Cavendish writes,

These several sorts of men, each followed such a profession as was most proper for the nature of their Species, which the Empress encouraged them in... The Bear-men were to be her Experimental Philosophers, the Bird-men her Astronomers, the Fly- Worm- and Fish-men her Natural Philosophers, the Ape-men her Chymists, the Satyrs her Galenick Physicians, the Fox-men her Politicians, the Spider-and Lice-men her Mathematicians, the Jackdaw- Magpie- and Parrot-men her Orators and Logicians, the Gyants her Architects...⁵⁶

Each kind of species of citizen in the new world represents a different field of study. The Empress questions each species about their methods and beliefs until she is satisfied. These dialogues are, of course, a proper discourse. The Empress asks the citizens direct questions and raises criticisms. The animal-men, in return, provide clear reasons for their methods and findings. In this iteration of an inner discourse, Cavendish uses fictional characters to represent her opponents.

Members of the Royal Society, who Cavendish considered to be experimental philosophers, are represented by the Bear-men in *The Blazing World*.⁵⁷ In a humorous contrast,

⁵⁵ Eve Keller, "Producing Petty Gods: Margaret Cavendish's Critique of Experimental Science", *ELH* 64, no. 2 (1997): 463.

⁵⁶ Cavendish, *The Blazing World*, 15-16.

⁵⁷ Sarasohn explains the significance of Cavendish's decision to represent experimental philosophers as Bear-men: "Bears had long been an object of the public gaze in early modern Europe: they were displayed and mocked in the bear gardens of Elizabethan and early Stuart England, where they were ripped apart by dogs. Cavendish here implies that both experimenting men and performing bears operate as public entertainment, thus collapsing the cultural pretensions

Cavendish represents herself through the character of the Empress.⁵⁸ In doing so, Cavendish voices concerns regarding the methods of the experiments performed by the Royal Society. Throughout her work, Cavendish criticized the use of artificial tools like microscopes in the study of natural philosophy.⁵⁹ In *Observations*, for example, Cavendish argues that, at best, these tools can give us information about the exterior of a body. It cannot, as some experimental philosophers claim, provide insight into the true nature of a body. She says, “For, put the case of the microscope to be true, concerning the magnifying of an exterior object but yet the magnitude of the object, cannot give a true information of its interior parts, and their motions.”⁶⁰ Although artificial instruments cannot reveal the truth of the inner workings of a creature, reason, Cavendish argues, “may pierce deeper, and consider their inherent natures and interior actions.”⁶¹ As the Empress, Cavendish repeats this claim when she tells the Bear-men that their microscopes and telescopes can “never lead you to the knowledge of Truth.”⁶² Cavendish believed that natural philosophy should be done primarily by the use of regular sense and reason. What we see with the naked eye, she argued, was closer to the truth than what we could see through artificial glass.

In her discourse with the Bear-men, Cavendish, as the Empress, warns them that artificial instruments can lead one to have false beliefs about the body being examined because

of the experimental philosophers”. Lisa T. Sarasohn, *The Natural Philosophy of Margaret Cavendish: Reason and Fancy During the Scientific Revolution* (Baltimore: Johns Hopkins University Press, 2010): 165.

⁵⁸ This is not obvious. Later in the story, Cavendish writes herself into the text explicitly as the ‘Duchess of Newcastle’ character. The Empress, however, is also representative of Cavendish insofar as she rehearses arguments made by Cavendish in the *Observations*. For further discussion regarding Cavendish’s multiple self-representations in *The Blazing World* see, for example, N. Pohl, “‘Of Mixt Natures’: Questions of Genre in Margaret Cavendish’s *The Blazing World*”, *A Princely Brave Woman: Essays on Margaret Cavendish, Duchess of Newcastle*, ed. by Stephen Clucas (Burlington, VT: Ashgate, 2003), 51-68; J. Caballero, “‘Yet Is She a Plain and Rational Writer’: Margaret Cavendish’s Self-Fashioning in *The Blazing World*, Politics, Science, and Literature”, *British and American Studies* 24 (2018): 19-35; C. Borbély, “The Extravagance of Form in Margaret Cavendish’s *The Blazing World*”, *Caietele Echinox* 46 (2024): 139-150; and E. Keller, “Producing Petty Gods: Margaret Cavendish’s Critique of Experimental Science”, *ELH* 64, no. 2 (1997): 463.

⁵⁹ E. Wilkins, in “Margaret Cavendish and the Royal Society”, carefully shows that Cavendish’s views on the use of artificial tools in experimental philosophy were shared by John Locke, Thomas Sydenham, and Thomas Hobbes. See also S. Clucas, “Margaret Cavendish and the Rhetoric and Aesthetics of the Microscopic Image in Seventeenth-Century England”, in *Margaret Cavendish: An Interdisciplinary Perspective*, ed. by L. Walters, B.R. Siegfried (Cambridge: Cambridge University Press, 2022), 51-68.

⁶⁰ Cavendish, *Observations*, 100.

⁶¹ *Ibid.*

⁶² Cavendish, *The Blazing World*, 28.

the magnifying distorts the appearance of the body. Again, in the *Observations*, Cavendish repeats this worry. She points to experimental philosophers who claim to have discovered the number of eyes on a fly by putting the fly under a microscope.⁶³ While the microscope shows “about 14,000 eyes”, Cavendish says, it is ultimately a mistake to believe the fly has 14,000 eyes.⁶⁴ If a fly did have 14,000 eyes, Cavendish argues, it would have great sight: “if flies should have so many numerous eyes, why can they not see the approach of a spider until it be just at them?”⁶⁵ Surely, Cavendish concludes, the flies do not have so many eyes because they cannot see better than creatures with only two eyes. Tools that distort the appearance of a body, like microscopes, can be misleading in this way. Cavendish makes this same argument against artificial tools as the Empress in *The Blazing World*. After being shown a telescope, the Empress says, “glasses are false informers, and instead of discovering the Truth delude your senses.”⁶⁶ She orders the Bear-men to break their tools, but they kneel before her and ask to keep them because they “take more delight in Artificial delusions, then in Natural truths.”⁶⁷

Despite her exclusion as a member of the Royal Society in real life, in the *Blazing World*, Cavendish, as the Empress, has the opportunity to openly criticize their methods. Ultimately, the Bear-men are instructed to keep their “disputes and quarrels ... within their Schools” so that they do not cause “factions or disturbances in State, or Government.”⁶⁸ In other words, keep your ‘artificial delusions’ to yourself! Once again, Cavendish uses an imaginative discourse to address her opponents and to enter into conversation with them. If she could not be a member of the Royal Society, she could imagine a world where she not only held proper discourse with them but also ruled over their activities.

Later in the story, Cavendish writes herself into the text again as the Duchess of Newcastle.⁶⁹ The introduction of the Duchess comes as the Empress desires to write a Cabbala

⁶³ Cavendish is referencing experiments on flies referenced in Robert Hooke’s *Micrographia* and Henry Power’s *Experimental Philosophy*. See R. Hooke, *Micrographia, or, Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses with Observations and Inquiries Thereupon* (England: Printed for James Allestry, 1667) and H. Power, *Experimental Philosophy, in Three Books Containing New Experiments Microscopical, Mercurial, Magnetical: With Some Deductions, and Probable Hypotheses, Raised from Them, in Avouchment and Illustration of the Now Famous Atomical Hypothesis* (London: Printed by T. Rovcroft for John Martin and James Allestry, 1664).

⁶⁴ Cavendish, *Observations*, 59.

⁶⁵ *Ibid.*, 60.

⁶⁶ Cavendish, *The Blazing World*, 27.

⁶⁷ *Ibid.*, 28.

⁶⁸ *Ibid.*

⁶⁹ *The Blazing World* ultimately features Cavendish’s voice in three iterations as the Empress, the Duchess, and as the author of the story. Occasionally, Cavendish breaks her telling of the story and inserts commentary in the first person. See, for example, pages 107–108.

and requires a scribe. She discusses who she should call on to be her scribe with Spirits:

Then, said she, I'll have the Soul of one of the most famous modern Writers, as either of *Galileo*, *Gassendus*, *Des Cartes*, *Helmont*, *Hobbes*, *H. More*, &c. The Spirits answered, That they were fine ingenious Writers, but yet so self-conceited, that they would scorn to be Scribes to a Woman. But, said they, there's a Lady, the *Duchess of Newcastle*; which although she is not one of the most learned, eloquent, witty and ingenious, yet she is a plain and rational Writer; for the principle of her Writings, is Sense and Reason, and she will without question, be ready to do you all the service she can. That Lady then, said the Empress, will I chuse for my Scribe...⁷⁰

Notice that the Empress' reason for choosing to work with the Duchess of Newcastle is that other philosophers, including Descartes, van Helmont, Hobbes, and More, would refuse to work for a woman. Cavendish as the Empress, as in her own life, is left to work with herself. The discourse that occurs between the Empress and the Duchess of Newcastle is distinct from the form of philosophical inner discourse described in this paper. First, both characters are representative of Cavendish. Cavendish does not use either character to represent a philosophical opponent. Second, the nature of their discourse more closely resembles a dialogue between friends rather than a focused investigation into a particular question in natural philosophy.⁷¹ In fact, most of their dialogue occurs in what Cavendish calls the 'Fantastical' part of the text. Before the main text of the story, Cavendish says the work will be divided into three parts: "The First Part is *Romancical*; the Second, *Philosophical*; and the Third is merely Fancy; or, (as I may call it) *Fantastical*."⁷² Rapatz explains,

The romance then transitions into the philosophical as the new Empress explores the utopian world and interrogates the animal-men about their government, religious beliefs and practices, as well as the natural sciences and philosophies... The end of the first part of *Blazing World* then drifts into the fantastical as the women return together to the Duchess's beleaguered seventeenth-century England.⁷³

The bulk of the 'philosophical part' of the text occurs during the Empress' investigation into the work of the animal-men. As discussed above, Cavendish employs inner discourse

⁷⁰ *Ibid.*, 89.

⁷¹ This is not to say that the Empress and Duchess do not discuss important topics. Among other subjects, they discuss art, civil war, and government.

⁷² "To All Noble and Worthy Ladies" of *The Blazing World*.

⁷³ Vanessa L. Rapatz, "A World of her own Invention": Teaching Margaret Cavendish's *Blazing World* in the Early British Literature Survey and Beyond", *ABO: Interactive Journal for Woman in the Arts, 1640-1830* (2024): 2.

in the philosophical section of the text in order to simulate debates between herself and the experimental philosophers or Bear-men. Thus, although Cavendish writes a dialogue between two versions of herself, as the Empress and Duchess, she does not write in the style of *philosophical* inner discourse as described in this paper.

Inner discourse as an anti-experimentalism argument

In the background of her employment of inner discourse is Cavendish's rejection of the view that philosophical debate should be replaced with experiments. During the early years, members of the Royal Society regularly performed experiments. Some believed experiments provided better insight into truths of natural philosophy in comparison to traditional rational discourse. One of Cavendish's main opponents on this point was Robert Hooke. In the Preface of *Micrographia*, Hooke argues that the remedy for the limitations of human reason will "proceed from the real, the mechanical, the experimental *Philosophy*, which has this advantage over the *Philosophy* of discourse and disputation."⁷⁴ As seen in the discourse between the Empress and the Bear-men of *The Blazing World*, Cavendish vehemently rejects this view. In response, she writes, "discourse shall sooner trace nature's corporeal figurative motions, then deluding arts can inform the senses; For how can a fool order his understanding by art, if nature has made it defective?"⁷⁵ If, as Hooke says, the understanding is already flawed, how can artificial experiments improve one's reasoning? Regular discourse, Cavendish argues, can better lead to insights about the workings of nature.

Cavendish also argues that Hooke has the order of operations backwards. It is not the case that experiments affect the reason, but that reason motivates the experiments. In this way, "the artist or mechanic" of the experiment "is but a servant to the student" of reason.⁷⁶ Cavendish does not want to reject experimental philosophy altogether. Instead, her aim is to argue in favor of pairing experiments with rational discourse. Cavendish explains, "Experimental and speculative philosophy do give the surest informations, when they are joined or united together."⁷⁷ Speculative philosophy or philosophy that relies on reason and discourse, she believes, should direct experiments. Cavendish writes, "Although experimental philosophy is not to be rejected, yet the speculative is much better, by reason it guides, directs and governs the experimental."⁷⁸ It is a huge mistake, Cavendish believes, to reject discourse all together. She, concludes,

⁷⁴ Hooke, *Micrographia, or, Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses with Observations and Inquiries Thereupon* (London: Printed for James Allestry, 1667), Preface.

⁷⁵ Cavendish, *Observations*, 49.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*, 242.

⁷⁸ *Ibid.*

Our age being more for deluding experiments than rational arguments, which some call “tedious babble,” doth prefer sense before reason; and trusts more to the deceiving sight of their eyes, and deluding glasses, than to the perception of clear and regular reason.... Thus reason must stoop to sense, and the conceptor to the artist, which will be the way to bring in ignorance, instead of advancing knowledge, for when the light of reason begins to be eclipsed, darkness of understanding must needs follow.⁷⁹

Once again, Cavendish warns against the use of ‘deluding glasses’ like microscopes in the pursuit of information about a body of nature. Cottagnies notes that “Hooke’s practice of microscopic observations relied on the belief that both an objective and clear perception and an objective observation were possible.”⁸⁰ Against Hooke, Cavendish argued that microscopes were unreliable. A change in light, for example, could easily affect how the object under the microscope appeared to its user. Lascano explains the seriousness of this concern,

The experimenter relied on ever-changing ambient light to illuminate his subject... If an object looks different in different lighting conditions or in various positions, how does one determine what the “true form” is given that there is no independent verification for something that cannot be seen with the naked eye?⁸¹

In *The Blazing World*, the experimental philosophers admit to this limitation. The Bearmen confess, “our Glasses do onely represent exterior objects, according to the various reflections and positions of light.”⁸² Not only do microscopes fail to acquire knowledge of the interior nature of the object, but they are also prone to err. A sole reliance on experiments, for these reasons, Cavendish argues, will lead philosophers away from true knowledge. Rational arguments, then, remain essential to progress in natural philosophy. Cavendish’s use of the inner discourse throughout the texts above is not only a technique allowing her to refine her philosophical views and enter into debates with her opponents, but it is also an argument, by way of demonstration, against experimental philosophers who wanted to do away with rational discourse. In creating a discourse between herself and her opponents throughout her written work, Cavendish showcases the benefits of using rational discourse to do natural philosophy.

⁷⁹ *Ibid.*, 196.

⁸⁰ Line Cottagnies, “Margaret Cavendish’s Critique of Robert Hooke in *The Blazing World*,” *Revue d’histoire des sciences* 77, no. 2 (2024): 243.

⁸¹ Marcy P. Lascano, “Margaret Cavendish and the New Science: “Boys that play with watery bubbles or fling dust into each other’s eyes or make a hobbyhorse of snow,” *The Routledge Handbook of Feminist Philosophy of Science* (2020): 70-71.

⁸² Cavendish, *The Blazing World*, 41.

Conclusion

In discussing Cavendish's use of different genres, Sarasohn suggests, "It may be that she used different rhetorical tactics to insinuate her ideas into a public forum increasingly closed to women in the late seventeenth century".⁸³ The aim of this paper is to identify inner discourse as one of Cavendish's savvy rhetorical tactics. Throughout her life, Cavendish aimed to acquire knowledge about the natural world. Discourse, she believed, could help her get closer to the truth of these matters. Although she was, for the most part, ignored and isolated, Cavendish did not retreat and give up on this project. Instead, she found imaginative ways around the silence of her contemporaries. If they would not write to her, she would write to them by devising a fictional correspondence in *Philosophical Letters*. If members of the Royal Society did not debate with her about their reliance on experiments, Cavendish would enjoy a dialogue with them on this topic anyway in *The Blazing New World* where she, as an Empress, rules over the experimental philosophers. Likewise, in the discourse between Cavendish's Latter and Former Thoughts in "An Argumental Discourse", Cavendish demonstrates what the debates between herself and her opponents might have looked like were they to engage seriously with her work. Not only does Cavendish use the form of inner discourse to enter exclusive conversations, she also, in doing so, demonstrates that women are capable of studying natural philosophy. Likewise, her use of inner discourse serves as evidence for the importance of using rational discourse *alongside* experiment to acquire truths about the natural world. Ultimately, throughout her work, Cavendish succeeds in employing inner discourse to overcome her exclusion from the prominent philosophical debates at the center of 17th century scientific culture.⁸⁴

⁸³ Sarasohn, *The Natural Philosophy of Margaret Cavendish*, 2.

⁸⁴ I am very grateful to three anonymous reviewers for their comments. This paper has been significantly improved as a result of their feedback.

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