

Doctoral Proposal

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October 30, 2008

A Union of Reason and Fancy: Margaret Cavendish's Aesthetic for the New Science

I. Introduction

A. Aims

Virginia Woolf viewed Margaret Cavendish as an isolated figure living with her husband in their remote country estate, “scribbling” endless fantasies, and expounding her untutored views of science without restraint or revision.¹ Her grandiose ambitions and bizarre sartorial display, as well as her insistence on publishing her works despite restrictive codes on such behavior by women, led many of her contemporaries to think her eccentric or even mad. This legacy has lasted to the present day when critics excuse her ostensibly clumsy, repetitious writing style as a kind of compulsive escape into a world of the mind. They search her works for early feminist awakenings, but discount her serious contribution as a literary figure or philosopher of science. In contrast to these views, my aim in this dissertation is to examine Cavendish as a writer of serious intention who reorients contemporary patterns of discourse and genre to present a philosophy of science that is radically opposed to the prevailing empiricist model initiated by Bacon and Hobbes and endorsed by the Royal Society. It is my contention that her writings constitute a new model for knowing the world that not only legitimizes her female authorship, but also proposes to heal the split between mind and body, reason and fantasy and other gendered divisions that preoccupy her society.

In order to understand Cavendish's strategies for entering the debate over the new science I will examine her response to various modes of discourse available in her culture. By “discourse” I am referring to the variety of idioms or “languages” available to a writer in a given

historical context. According to the historian J. G. A. Pocock, the more complex and contradictory the writer's language environment, the "richer and more ambivalent" are the speech acts she is capable of performing and the greater the likelihood these acts will induce modification and change.²

In the seventeenth century, philosophers such as Bacon and Hobbes had formulated a gendered view of mind in which wit and fancy were devalued as "feminine" and confined to the arts, while "masculine" faculties of reason and logic were assigned to areas of serious inquiry such as science and natural philosophy. Each faculty had its corresponding discourse: While wit was associated with feminine languages of fiction and fantasy, reason was associated with plain, non-metaphorical expression. Cavendish's response to these mental categories entailed a radical reorientation of discourse. In her writings she appropriates the languages of both fancy and reason but reverses their hierarchical and gendered associations: She makes fancy the language of science, but associates reason and logic with artistic genres; science becomes the fanciful construct while art becomes the rule-bound reality. By this inversion Cavendish challenges the contemporary fixation on experimentalism and collection of "facts" and calls for a new emphasis on hypothesis and imaginative speculation. Instead of the "masculine" mathematical language advocated by the Royal Society, Cavendish empowers "feminine" fancy to explore unknown possibilities in nature, construct thought experiments, and invent new theories. Meanwhile, in the literary aspect of her work she violates prescribed rules and genres, transgresses borders, and combines categories. In sum, I will argue that Cavendish uses these reconfigurations of discourse and genre to reveal limitations of the new empiricist science and to propose an alternative "hermaphroditic" model of mind that combines both reason and fancy in knowing the world.³

B. Critical Background

As Stephen Clucas has observed, Margaret Cavendish, perhaps more than any other early modern woman writer, has “prompted critical disclaimers, qualifications, and apologies.”⁴ In my view, much of the need for apologetics stems from three major critical perspectives that have burdened her reputation. The first involves a criticism of Cavendish’s artistic control and command of her subject. This assessment was first put forth by Virginia Woolf who describes Cavendish as an “untutored intelligence” whose writings poured out “higgledy-piggledy, in torrents of rhyme and prose, poetry and philosophy which stand congealed in quartos and folios that nobody ever reads.” Instead, “She should have had a microscope put in her hand. She should have been taught to look at the stars and reason scientifically. Her wits were turned with solitude and freedom.”⁵ To Cavendish’s contemporaries, criticisms of style were compounded by disapproval of a woman writing and publishing her own work. Dorothy Osborne, for example, declared “there are many soberer people in Bedlam . . . sure the poore woman is a little distracted . . . to venture at writeing book’s and in verse too”⁶ The scientific community was equally reticent in acknowledging her writings on natural philosophy. Though Thomas Hobbes and Sir Kenelm Digby were polite, they did not deign to provide critical responses to her work. In 1667, as Samuel Pepys reports, the Royal Society granted Cavendish a visit, but the gesture seemed more in response to her status of Duchess than to interest in her scientific work.⁷

Although Cavendish has attracted greater critical attention in the last few decades, the image of her writings as undisciplined “scribblings” has persisted. The reaction of scholars from Marjorie Nicolson in the mid-nineteen-sixties (“Mad Madge and the Wits”) to sympathetic critics such as Sylvia Bowerbank twenty years later (“The Spider’s Delight,” 1984) has been to marginalize her work by discrediting her as a tedious, rambling, untutored eccentric not worth

the labor of reading.⁸ Even Lisa Sarasohn who recognizes Cavendish's importance to the scientific debates of the period, ("A Science Turned Upside Down" 1984) includes comments about Cavendish's lack of education signified by her "hopelessly repetitive writing style" and her inability "to develop a systematic understanding of the work of others."⁹

In contrast to the prevailing critical judgments I hope to demonstrate that Cavendish's writings comprise a serious literary opus, one that demonstrates increasing intention and mastery. Problems of style that have led readers to disparage her writings as undisciplined and unrevised will be reconsidered in context as a conscious departure from the discourse modes of the day. Her "misuse" of inherited genres and languages will be understood, not as errors resulting from her lack of education, but as part of a deliberate strategy for engaging with the voices in her intellectual environment.

The second widespread critical argument claims that Cavendish uses feminine languages of fantasy and imagination to escape to an inner world of female empowerment. Douglas Grant in his 1957 biography claims Cavendish wrote her science-fiction romance The Blazing World in reaction to the rigors of her more conventional treatise, Observations upon Experimental Philosophy. In Grant's view Blazing World reveals Cavendish's "retreat from fact into fiction when once she suspected that fact was becoming intractable."¹⁰ More recently, Anna Battigelli has characterized Cavendish as an "exile of the mind," who redirects her energy from correcting or reforming the external world to shaping the more governable world of her mental life.¹¹ Yaakov Mascetti likewise sees Cavendish as staking out an inner world of fancy and wit that would become "the independent locus of feminine cognition and enfranchisement."¹²

In this dissertation I intend to differentiate Cavendish's program from seventeenth century retirement philosophies advocating retreat into a mental world. Instead, I will consider

her use of feminine languages of fantasy, metaphor and narrative as a deliberate incursion into areas previously restricted to masculine languages of reason and logic. It is my aim to demonstrate that works such as The Blazing World are not merely solipsistic fantasies, but literary constructs designed to explore the implications of ideas and to provoke a response. When, in her “Epilogue to the Reader” Cavendish invites others to create a world as she has, she is challenging them to answer her model with their own fictional representations. Far from a private amusement, Cavendish’s writings are clearly intended to engage with the viewpoints current in her own day. The fact that she wrote prolifically, published her work immediately, and mailed copies to Oxford and Cambridge indicates that she expected to be read and responded to by the thinkers of her period. Nevertheless, the fact that she was ignored by her contemporaries has led many readers to accept the critical claim that she was withdrawing into her own mind as an area of freedom and consolation.

Finally, the third approach that has impeded Cavendish scholarship is the narrow understanding of her work within an exclusively feminist context. This trend occurred primarily in the eighties when feminist critics searching for confirmations of contemporary agendas in early modern women writers scoured Cavendish’s writings for statements of female empowerment. Many, however, were perplexed by the inconsistencies in Cavendish’s work. Hilda Smith, for example, although impressed by some of Cavendish’s more strident feminist slogans, found “interpretive problems” because her feminism was “at once the most radical and far-reaching” and as “critical of her sisters as the staunchest misogynist.”¹³ Other readers were frustrated by the contradictions between Cavendish’s proto-feminist statements and her Royalist convictions involving adherence to hierarchical structures of patriarchal power.

In her 1988 landmark article, “Embracing the Absolute,” Catherine Gallagher proposed a solution to this dilemma. Pointing to the phenomenon of “Tory Feminism,” she demonstrated that Cavendish’s idea of “singularity, autonomy, and the absolute self” arises from a model of absolute monarchy that she holds as an ideal.¹⁴ Gallagher’s convincing argument has influenced many subsequent writers to regard political absolutism as a model for Cavendish’s feminism and a justification for her retreat into a private world of autonomous self. The result, as Jeffrey Masten has pointed out, has been to “quarantine” Cavendish from critical methods that would study her engagement with larger social contexts. Instead, she has become isolated in a “more or less hermetic absolute selfhood.”¹⁵

At the end of the eighties some feminist critics such as Elaine Hobby began to recognize the distortions their allegiances had imposed on research of early modern women. Hobby warned that “we find in the past what we look for . . . we only come up with answers to the questions we think to ask.”¹⁶ She urged scholars to be aware of the preconceptions they bring to early women writers and to learn to see them in broader contemporary contexts. Barbara Lewalski concurred that early modern women writers have been “too narrowly contextualized.”¹⁷ The efforts of these researchers has led to a reorientation of Cavendish studies in which scholars have begun to examine Cavendish’s engagement with political, scientific, philosophical, and aesthetic issues of her day.

C. Methodology

Cavendish’s texts, which she declared to be singular, original, and autonomous, can be understood only in relation to other texts and discourses in her culture. We must uncover the languages and controversies she was responding to in order to theorize about her intentions and understand the full impact of her interventions on seventeenth-century readers. My

methodology, therefore, will involve both a close reading of Cavendish's writings and a contextual approach based on the work of the Cambridge School historians J. G. A. Pocock and Quentin Skinner.

Pocock notes two major fallacies of an "extra-historical" understanding of texts: "anachronism," the "attribution to a past author of concepts that could not have been available to him" and "prolepsis," regarding the author as "anticipating the formation of arguments in whose subsequent formation the role of his text, if any, had yet to be historically demonstrated."¹⁸ These two mental "sets" or anticipations of a present paradigm in the work of past writers are faults I have pointed out in critics relying exclusively on feminist readings of Cavendish. In response to these "mythologies," Skinner proposes that the writing of a text be regarded as "an act performed in history in the context of some ongoing discourse."¹⁹ In Skinner's view, the essential question in studying a text situated in a particular moment in history and directed to a particular audience is what the writer intends in making such a statement. The researcher's goal must be to discern what the author "was doing," and what others thought was meant as recorded in their responses. By shifting from intention to performance Skinner incorporates J. L. Austin's idea that speech is also an action, that to *say* something is always at the same time to *do* something. In his descriptions of a writer's textual actions, Skinner resorts to the vocabulary of games and strategies: What was an author "up to" when he wrote and published a text? What was he "playing at" or "getting at," what was the intention of performing a particular "move"? All of these terms imply an audience upon which the writing was to have an effect.²⁰ Skinner is seeking to uncover, in Austin's terms, the particular 'illocutionary force' a given utterance may have had on a particular occasion. It is "the grasp of force as well as meaning" that is essential to the understanding of texts."²¹

This approach seems especially suited to understanding Cavendish whose writings engaged with male-dominated science in seventeenth-century English culture. Her interventions offer clues as to why she chose to write about science and which thinkers provoked her response. Their philosophical models and modes of discourse provide materials for Cavendish (which she appropriates or reorients) to build a philosophy in reaction to theirs. The hostility or condescension of her audience is a measure of her transgression in areas of public consensus and a mark of the impact of her aesthetic moves. Only when we understand Cavendish's literary strategies in relation to her context can we begin to reevaluate her both as a literary figure and as a critic of her surrounding culture.

Another contextual principle relevant to Cavendish is Pocock's assertion that sophisticated discourse is "by nature polyvalent." This means that texts are built of "a texture of languages capable of saying different things." An author may operate among these patterns of polyvalence, employing and recombining them according to his ability. What may look to one reader like a web of "linguistic muddles and misunderstandings" may appear to another like the creative use of "rhetoric, literature and the history of discourse."²² As Pocock points out, a "sophisticated performer" in the use of the multiple languages in his environment will exploit all their resources and invent new languages if existing means are inadequate. Cavendish is just such a performer. She selects languages of fancy and uses them for subject matters usually foreign to them. She also mixes discourses within a single text, thereby confusing the reader and jarring him out of habits and prejudices. The radical nature of Cavendish's experiments with language and genre is reflected in the conflicted responses of contemporary readers to her work.

I will also use Skinner and Pocock's contextual approach to clarify questions of what Skinner calls "oblique strategies." These are methods a writer may employ to "set out and at the

same time to disguise what he means.”²³ Because Cavendish’s act of publishing her writings transgressed the prerogatives of women at the time and because her views opposed the dominant paradigm of empirical science, it is reasonable to conclude that she devised strategies for conveying her ideas indirectly. Indeed, her many disclaimers, her use of irony and satire, and her invention of fictional alter egos may be understood as disguises for divergent or heretical views. Modern readers have often taken these devices literally as when they interpret the Preface to The Blazing World justifying her relaxing into fantasy “to recreate the mind” as a truthful confession of her inadequacy for the rigors of science. I hope to use context to recover some of the “illocutionary force” of Cavendish’s transgressive statements.

II. Proposed Chapters

1. Historical Backgrounds: Debates over Models and Methods for the New Science

Though a number of women wrote on philosophy in the seventeenth century, Margaret Cavendish was the only one to publish six full-length books in the area of natural philosophy. Clearly the goal of formulating an original theory in response to competing models motivated her productivity. She hoped that by the “singularity” of her ideas she might “live in the world’s memory” and “not die like a beast, and be forgotten.”²⁴ In this chapter I will examine some seventeenth-century theories in natural philosophy that provided the stimulus for Margaret Cavendish’s critique of science and the formulation of her own theory of nature. My interest will focus on the empiricism of Francis Bacon, the mechanical materialism of Thomas Hobbes, and the dualistic separation of mind and body in Rene Descartes. Each of these theories has implications for social and political power arrangements and for man’s relation to nature. I will be searching for aspects of their work that either appealed to Cavendish’s imagination or that she desired to oppose or reject. For example, though Cavendish sided with Hobbes in espousing a

materialistic philosophy that denied incorporeal spirits, she refused to accept his mechanistic theory that reduced all processes in nature to the workings of a complex machine. In search of a non-mechanistic alternative, she looked to Bacon's "pneumatics," Johannes Von Helmont's vitalism, and to Stoic theories that make nature a single, living, and intelligent organism. At the same time, she distanced herself from the Cambridge Platonist Henry More whose vitalist theory posited an incorporeal "spirit of nature."²⁵ Cavendish's choices led to an animistic materialism in which "nature is but one infinite self-moving, living and self-knowing body" that contains a mixture of inanimate, sensitive, and rational matter in all its parts.²⁶

Cavendish's writing also questions Descartes' confidence that the mind stands separate from nature and can comprehend and control it. In both The Blazing World and her poetry she insists that Man, like other living things is only a small part of an infinite living universe and can understand it only from his limited perspective. Finally, Cavendish questions the exaggerated confidence in method that scientists of her own day use to justify their ability to apprehend truth. Whether it is Hobbes' geometrical model of clear definitions leading to necessary consequences, or Bacon's use of experiment, observation, and collection of "facts," all methods contain the illusion of accuracy and objectivity resulting in clear irrefutable answers to a question. In contrast, Cavendish avoids rigid methodologies and simple solutions by using fictional devices such as dialogue and imagined scenarios to speculate on the many possible explanations of phenomena in nature.

In addition to philosophical theories Cavendish's work responds to the new rhetorical practices advocated by Bacon and Hobbes and promoted by the Royal Society. In Thomas Sprat's History of the Royal Society (1667) he denounces "fancy" as an instrument of scientific discourse and asks: "Who can behold, without indignation, how many mists and uncertainties,

these specious *Tropes* and *Figures* have brought on our Knowledge?” Sprat would replace “amplification, digressions, and swellings of style” with a return to “primitive purity” and “mathematical plainness” for scientific writing.²⁷ In this section I will examine how the call for a bare, mathematical language suited to a masculine, fact-oriented science provides the context for Cavendish’s use of fantasy languages for scientific speculation.

2. Early Poetry: A Critique of the New Science Through Metaphor and Fancy

The aim of this chapter will be to examine Cavendish’s first publication, Poems and Fancies (1653) as an early experiment in the use of metaphor, image, and creative fancy to engage with the scientific theories of her day. I will be especially interested in Cavendish’s imaginative response to atomism including her poetic fantasy about “worlds within worlds” which uncovers some atheistic implications of the theory. I will show how Cavendish’s use of figurative language allows her to question key assumptions of empirical science including the view of the mind as an objective observer, the infallibility of the senses, the ability of Man to apprehend truth, and the view of nature as a passive, inert body subject to Man’s domination and exploitation. In place of these views Cavendish proposes an animistic materialism in which every part of nature contains reason and sense, and truth is approached through the interplay of many perspectives.

3. Prefaces and Postscripts: Margaret Cavendish’s Poetics

In this chapter I will select examples of Margaret Cavendish’s writing in which she uses “second-order languages” to write self-reflexively about her intentions and methods. By “second order languages” I am referring to Pocock’s term for the languages assumed by writers to comment critically on their own use of discourse. In Pocock’s view instances of second-order or meta-language can resolve issues of whether a writer’s manipulations are “deliberate” or

“unconscious.”²⁸ Cavendish’s writing is especially rich in this use of second order languages.

Her many prefaces and postscripts, her introductory poems, addresses to the reader, and disclaimers comprise a justification of her methods that amounts to a personal poetics.

Cavendish’s reflections on her own practice demonstrate that her writing style is not merely spontaneous, unedited, and without clear intention as many of her critics have claimed, but part of a deliberate aesthetic program which responds to practices of language and genre in her context. It is my hope that a systematic study of this material will bring new insight into Cavendish’s craft and inventiveness in devising literary strategies to embody the principles of her natural philosophy.

4. Reason and Fancy in Dialogue: A Study of Observations upon Experimental Philosophy and The Blazing World

In this chapter I will examine Cavendish’s joint publication of Observations upon Experimental Philosophy and The Blazing World, two works treating the same issues in natural philosophy, one in conventional rational discourse and the other using fantasy modes of romance and science fiction. My aim will be to examine the implications of this juxtaposition in terms of opposing languages and contrasting models for knowing the world. What does each have to contribute to the other? To what extent does each contain discourse elements of the other? A clue comes in her address “To the Reader” preceding Blazing World where Cavendish distinguishes between “reason” and “fancy.” While “reason” seeks the “true causes of natural effects,” “fancy” creates out of itself and “delights in its own work.” While “reason” seeks truth, “fancy” creates fictions. Both faculties, however, are equal in being actions or effects of “rational matter.”²⁹ In other words, though reason and fancy involve different operations, both are products of the rational mind, both are mental constructs. I hope to demonstrate that by

joining the works, Cavendish is arguing for a more “hermaphroditic” use of mind in intellectual inquiry in which reason and fancy join to explore ideas and redefine man’s relation to the natural world.

As part of this study I will explore Cavendish’s use of dialogue and multiple viewpoints as an aesthetic strategy for testing her philosophical ideas in a fictional context. In addition to studying the larger dialogue of the two works in opposition, I will be focusing on the dialogue with herself in “An Argumental Discourse” from Observations upon Experimental Philosophy, the interchanges between the Empress and the various animal men in The Blazing World, and the dialogues between the Empress and the Duchess, as Cavendish’s fictional alter egos in The Blazing World. I hope to clarify how these interchanges facilitate Cavendish’s negotiation of ideas and serve her aesthetic goals. In relation to this research I will examine how Cavendish’s preference for dialogue is a response to her context. In contrast to the laboratory-based inductive experimentalism advocated by the Royal Society she creates a fictional experiment in which voices from her culture confront one another through imaginary characters and alter egos. By the time she writes Observations and BlazingWorld Cavendish’s epistemology had merged with her aesthetics: Knowing the world means devising a literary construct where opposing viewpoints can interact and propose solutions. Though the reader may try to identify Cavendish’s own position, her irony and satire enforce a fictional distance. The reader is left to negotiate the issues and respond by creating an alternative world of his or her own liking.

5. Conclusion

In the concluding chapter I intend to review some of the implications of Cavendish’s experiments in discourse and philosophy and discuss their importance to our perception of scientific debates in the seventeenth century. Cavendish’s interventions are especially interesting

in offering an outsider's perspective based on her subordinate status as a woman and her exclusion from the predominantly male scientific community. Unconditioned by elite education or professional allegiance, she uses reason and imagination to develop her own natural philosophy and in the process uncovers weak points and contradictions in the prevailing Baconian model. Cavendish's "misreadings" of scientific issues may reveal limitations in her education, but they also challenge cultural premises underlying what might seem a monolithic paradigm of experimentalism and domination over nature. Her interventions touch a variety of issues including alternative ways of knowing, gender hierarchies in language, questions of authority and individual autonomy, and issues of female authorship. While her use of fanciful discourse serves her epistemological model of indeterminacy and multiple perspectives, it may also reflect a contemporary nostalgia for a more vitalistic and resonant nature that inspired the writings of John Donne and Sir Thomas Browne. It is my hope that research into Cavendish's dialogue with her cultural context will reverse some of the major critical misconceptions burdening her reputation and will reveal her as an alert and inventive writer whose unconventional use of language opens a new perspective on the debates of the period.

Endnotes

¹ Virginia Woolf, A Room of One's Own (London: Hogarth Press, 1929) 61-62.

² J. G. A. Pocock, Virtue, Commerce, and History (Cambridge: Cambridge UP, 1985) 5.

³ Cavendish uses the term “hermaphroditical” to mean “of mixt natures.” See “To the Reader” in Margaret Cavendish, Observations upon Experimental Philosophy, ed. Eileen O’Neill (Cambridge: Cambridge UP, 2001) 14.

⁴ Stephen Clucas, ed., A Princely Brave Woman: Essays on Margaret Cavendish, Duchess of Newcastle (Burlington, Vt.: Ashgate, 2003) 1.

⁵ Woolf 61.

⁶ Woolf 61.

⁷ Marjorie Hope Nicolson, Pepys’ Diary and the New Science (Charlottesville: U of Virginia P, 1965) 108.

⁸ Sylvia Bowerbank, “The Spider’s Delight: Margaret Cavendish and the Female Imagination,” English Literary Renaissance 14 (Fall, 1984) 406-407. Bowerbank notes that “her writing is muddled and indecisive, yet she expected posterity to admire it.” She sees Cavendish’s free fanciful style “as cautionary tale for those of us who would suggest that craftsmanship and order are masculine, and artlessness and chaos are feminine.” Bowerbank also cites Marjorie Nicolson’s exclusion of Cavendish from Voyages to the Moon, her study of seventeenth-century travel fantasies, because she could not bear to reread that “ponderous tome” in order to bring order out of. . . chaos.” (Bowerbank 392).

⁹ Lisa T. Sarasohn, “A Science Turned Upside Down: Feminism and the Natural Philosophy of Margaret Cavendish,” Huntington Library Quarterly 47 (1984): 290, 292.

¹⁰ Douglas Grant, Margaret the First: A Biography of Margaret Cavendish, Duchess of Newcastle, (1623-1673) (Toronto: U of Toronto P, 1957) 208.

¹¹ Anna Battigelli, Margaret Cavendish and the Exiles of the Mind (Lexington: U P of Kentucky, 1998) 8.

¹² Yaakov A. Mascetti, "A 'World of Nothing but Pure Wit': Margaret Cavendish and the Gendering of the Imaginary," (Abstract) Partial Answers 6/1 (2008).

¹³ Hilda Smith, Reason's Disciples: Seventeenth-Century English Feminists (Urbana: U of Illinois P, 1982) 75-76.

¹⁴ Catherine Gallagher, "Embracing the Absolute: The Politics of Female Subject in Seventeenth-Century England," Genders 1 (1988): 25-26.

¹⁵ Jeffrey Masten, "Material Cavendish: Paper, Performance, 'Sociable Virginité,'" Modern Language Quarterly (March, 2004): 59.

¹⁶ Elaine Hobby, Virtue of Necessity: English Women's Writing 1649-88 (Ann Arbor: U of Michigan Press, 1989) 204.

¹⁷ Barbara Lewalski, Writing Women in Jacobean England (Cambridge, Mass.: Harvard UP, 1993) 1.

¹⁸ J. G. A. Pocock, "Quentin Skinner: The History of Politics and the Politics of History," Common Knowledge 10:3 (2004): 537.

¹⁹ Pocock 537.

²⁰ J. G. A. Pocock, Virtue, Commerce, and History (Cambridge: Cambridge UP, 1985) 5.

²¹ Quentin Skinner, "Meaning and Understanding in the History of Ideas," Meaning and Context: Quentin Skinner and his Critics, James Tulley, ed. (Princeton: Princeton UP, 1988) 61.

²² Pocock 9.

²³ Skinner 51.

²⁴ Margaret Cavendish, Poems and Fancies (London, 1653) 52.

²⁵ O'Neill, Observations upon Experimental Philosophy xiv-xv.

²⁶ Margaret Cavendish, Duchess of Newcastle, The Blazing World and Other Writings,
ed. Kate Lilley (London: Penguin Books, 1994) 176.

²⁷ Thomas Sprat, The History of the Royal Society (Selections) from first edition
(London 1667) Section XX, 7, ed. Jack Lynch
<<http://newark.rutgers.edu/~jlynch/Texts/sprat.html>.

²⁸ Pocock 11.

²⁹ Cavendish, Blazing World 123-124.

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