

SCIENTIFIC SATIRE IN DEFOE'S CONSOLIDATOR

"A LEXICON TECHNICUM FOR THIS PRESENT AGE:"

SCIENTIFIC SATIRE IN DEFOE'S CONSOLIDATOR

By

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## Abstract

In his Consolidator, Defoe, like many seventeenth- and eighteenth-century writers, ridicules the natural sciences of the day. His attack on the sciences, however, is ironic. Contemporary religion and politics, and not science, are the principal objects of his satire. Defoe's ostensible attack on the sciences is in fact directly related to, and a significant component of, his comments on the religious and political controversies of his day.

This thesis seeks to illustrate how sections of The Consolidator parody the language of contemporary philosophical transactions, and how this parody contributes to Defoe's social satire. The Introduction to the thesis provides a brief survey of the critical attention paid to Defoe's relationship with the "new sciences." Chapter One discusses Defoe's use of irony in his attack on the sciences, and illustrates how specific sections of The Consolidator parody contemporary scientific writing. Chapter Two relates this parody to Defoe's political satire, and Chapter Three relates it to his religious satire.

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## Introduction

Scholarship dealing with Defoe's interest in and interaction with the scientific thought and writing of his day has only begun to emerge in the last twenty years. Earlier writers had regarded Defoe's interest in contemporary science mainly from a biographical perspective. For example, James Sutherland says little more on the subject other than that Defoe's education at Charles Morton's Newington Green Academy stressed natural philosophy and practical experimentation, and that Defoe was probably influenced by Morton's own interest in the new sciences (22-23). Lew Girdler, in an article dealing with Defoe's education at Newington Green, supplements Sutherland's account of this formative period in Defoe's life with much more detail, but cites only one number of the Review (7.114 [Sat., Dec. 10, 1710]) and several passages in The Compleat English Gentleman (112-13, 154-58, 217-20) as evidence that Defoe was in fact influenced by his early exposure to natural science (Girdler 581, 591). Helmut Heidenreich, in the introduction to his edition (1970) of Oliver Payne's sales catalogue, which lists the contents of Defoe's library

at the time of his death in 1731, simply remarks that the relatively large number of works dealing with trigonometry, astronomy, optics, mechanics, and so on "bear[s] witness to [Defoe's] interest in applied mathematics and 'experimental philosophy'," in the Royal Society, and in practical applications of scientific knowledge (Heidenreich XXIII).<sup>1</sup>

Individual studies specifically devoted to exploring the presence of science in, and science's influence on, Defoe's writing itself did not appear until the 1970's. Clifford Johnson's "Defoe's Reaction to Enlightened Secularism: A Journal of the Plague Year" (1972) and Malinda Snow's "The Origins of Defoe's First-Person Narrative Technique: An Overlooked Aspect of the Rise of the Novel" (1976) are among the first such studies. Johnson attempts to demonstrate that Defoe's "Christian piety was perfectly consistent with a keen interest in experimental science" (Johnson 169), and sees the Journal as a forum in which "Defoe's staunch theology emerg[es] from an account filled with scientific information" (170)<sup>2</sup>. Taking a different approach, Snow argues that "Defoe owes a debt to later seventeenth-century scientific writing" (175), specifically, the narrative structures which early scientific writing often exhibited. Snow attributes Robinson Crusoe's "precise description of details, together with his briefly indicated suppositions and his emotional response"



(Snow 183) in his description of the cave where he finds the dying goat, for example, to similar narrative structures found in early scientific works, such as Robert Hooke's Micrographia (1665) and Robert Boyle's New Experiments (1660).<sup>3</sup>

Two articles appeared in 1988 which recognize Defoe's Consolidator as a work which deals extensively with contemporary science. In "The Influence of the New Sciences on Daniel Defoe's Habit of Mind," Ilse Vickers concludes that "The Consolidator failed as a political satire, but it has left us a record of Defoe's informed and imaginative use of the experimental scientists' interests and achievements" (171), but she devotes only a single paragraph to The Consolidator, and her treatment of the work is mainly a brief source study in which, like Defoe's earlier biographers, she stresses Charles Morton's influence on Defoe. Her study provides a valuable survey of Defoe's own comments on contemporary science, however, and it places him in the context of "a chain of ideas"-- that is, the development of experimental science-- "that reaches from Bacon to Boyle and Locke into the eighteenth century, with Defoe representing a significant link in this development of ideas" (167). Narelle L. Shaw's thesis in "Ancients and Moderns in Defoe's Consolidator" is that The Consolidator "represents a substantial contribution on Defoe's part to

the ancients-moderns controversy" (391), with Defoe, not surprisingly, "vindicat[ing]...the moderns" (392) by making the narrator of The Consolidator, who is ostensibly on the side of the ancients, contradict himself. Shaw not only discusses the scientific component of the ancients-moderns debate, she also argues that Defoe has the narrator make contradictory statements about navigation, mathematics, and the moon's influence on the tides.

The most recent article which addresses science in Defoe's work is Raimund Borgmeier's "Memoirs of Sundry Transactions from the World in the Moon-- drei satirische Mondreisen von Zeitgenossen Gullivers" (1989), which analyzes The Consolidator as a satiric voyage to the moon. Borgmeier concludes that as such the work is "basically disappointing" (116; my translation). Borgmeier identifies natural science as one of Defoe's satiric targets (119), however, and, like Shaw, admits that the appearance of the ancients' intellectual superiority over the moderns is "deceptive" (117).

This thesis responds to some of the issues raised in recent criticism, such as Defoe's satiric intention and his use of irony in The Consolidator. In addition, it will explore another important question: why does Defoe attack contemporary science? My thesis is that Defoe's parody of contemporary scientific writing in The Consolidator is not

an end in itself; it is in fact a satiric device which he employs in his contribution to the political and religious controversies of his day. In other words, by parodying scientific writing in the manner in which he does, Defoe indirectly attacks his political and religious adversaries. In Chapter One, I discuss Defoe's satiric intention toward science, and demonstrate how he parodies contemporary scientific writing. In Chapter Two, I relate Defoe's parody of scientific writing to the political satire, and in Chapter Three to the religious satire, in The Consolidator.

## Chapter 1

### Real and Imaginary Science

#### I

The subtitle of The Consolidator provides two significant details which, to its audience of 1705, would have clearly signaled its satiric purpose: "Memoirs of Sundry Transactions from the World in the Moon. Translated from the Lunar Language, by the Author of The True Born Englishman."<sup>4</sup> The more obvious detail is, of course, the identification of its author. "The Author of the True Born Englishman" was by this time no longer simply a pseudonym of Defoe's. As Paula Backscheider points out, The True-born Englishman (1700) and Legion's Memorial (1701) had made Defoe very well known in London (Backscheider 80); The Shortest Way With the Dissenters (1702), which had sent Defoe to Newgate Prison for three months and to the pillory for three afternoons, had, by the time of the publication of The Consolidator, firmly established Defoe's reputation as a polemicist and satirist. The second subtitled indication of Defoe's satiric intent is his pun on "Transactions": Defoe uses the word both in its colloquial sense of "happening" or

"event," and also in its more specialized sense of "philosophical transaction." Even if this second, more specialized sense were not apparent to contemporary readers at first glance (although the qualifying phrase "from the World in the Moon" suggests the second sense of "transactions"), after reading only a few pages they would see that, among other things, The Consolidator is a description of new discoveries and new mechanical devices, and that, in a playful and parodic manner, sections of it are similar in content and tone to popular scientific writings such as the Royal Society's Philosophical Transactions. Defoe's pun would quickly become apparent.

We must remember, however, that the most obvious and transparent characteristic of The Consolidator is its political and religious allegory. But just as Defoe's audience of 1705 would have been familiar with the thinly-disguised political and religious allusions of The Consolidator, they would also be sensitive to the conventions of popular scientific writing, and sensitive to the scientific characteristics of the form in which Defoe frames his allegory of current events and recent English and European history-- the form of the "voyage to the moon." Scientific allusion and technical explanation are in fact common features of early voyages. In her A World in the Moon, Marjorie Nicolson says that voyages to the moon after

the publication of Newton's Principia in 1687 had begun to settle into a definable literary genre in which "certain conventions [had] come to be accepted and repeated"; by this time few writers of such voyages tried to incorporate new facts about the moon into their narratives (53). Nicolson chooses Newton as a significant watershed in the history of the genre because he answered by scientific means many of the questions which earlier writers had posed and then speculated on, questions such as the regularity of the moon's motions and the moon's effect on tides (29).

Imaginative voyages to the moon written in the last decade of the seventeenth and the first decades of the eighteenth centuries were therefore not as "real," or as valid descriptions of scientific fact, as earlier voyages like Bishop Wilkins' Discovery of a New World (1638) and Mathematical Magic (1648).<sup>5</sup> Nicolson points out that by this time many writers were "following a literary rather than a scientific convention" (53) in their voyages. Defoe's narrator acknowledges his literary debts when he says that

I have heard of a World in the Moon among some of our learned Philosophers...but none of the fine Pretenders, no not Bishop Wilkins, never found Mechanic Engines, whose Motion was sufficient to attempt the Passage. (61)

These contextual and generic considerations are relevant to an understanding of the nature of Defoe's use of

scientific parody in The Consolidator. The form of the voyage to the moon provided Defoe, and many writers before him, with an obvious satiric tool: he could establish a parallel world on the moon, and in it allegorize contemporary Europe and all its political and religious discord.<sup>6</sup> But more importantly for our concerns here, the scientific character of the genre within which Defoe places this parallel world provided him with an additional satiric device: parodying contemporary scientific discourse to the extent which he did in The Consolidator enabled Defoe to attack the objects which he describes. And more often than not those objects are allegorical figures or representations of contemporary political and religious conflicts. In other words, by describing politics and religion in scientific language, Defoe gains a new satiric command over them.

## II

Defoe's use of scientific parody as a satiric device raises the questions of irony and of the author's relationship to the narrator of The Consolidator. Two types of evidence can be used to assess these questions; internally, the obvious contradictions within the text itself, and externally, the evidence in Defoe's other writings of his attitudes towards science. As we shall see,

contemporary readers were limited to internal evidence. Narelle L. Shaw, in "Ancients and Moderns in Defoe's Consolidator," has recently reassessed this internal evidence by refuting critics such as John F. Ross, who holds that "Defoe, in his own person, is the narrator" of The Consolidator (Ross 37), and Marjorie Nicolson, who believes that Defoe simply "turns the tables neatly upon many 'moderns' of his day" by implying that the ancient Chinese possessed much of the learning that the Moderns claim as theirs (Nicolson Voyages 184). Shaw argues that in the China section of The Consolidator (pages 1-36) Defoe "debunk[s]" his narrator "in an ironic manner" (391), and she demonstrates that the narrator's accounts of Chinese navigation and mathematics (393), their survival of the deluge (393-94), their knowledge of the moon's influence on tides (397), the existence of Chinese tracts which predate the deluge by two thousand years (398), and his gullible praise of Chinese ethical perfection (394) all indicate that Defoe is undermining his narrator, because these accounts contain contradictions which would have been apparent to Defoe's audience. Shaw begins her analysis of these contradictions, however, by criticizing the narrator's promise of

a Scheme of all those excellent Arts [the Chinese] are Masters of..., by way of Detection of the monstrous Ignorance and Deficiencies of European Science; which may



serve as a Lexicon Technicum for this present Age, with useful Diagrams for that purpose.... (The Consolidator 5-6).

Shaw says that "There are manifest absurdities in such a project" (393), and bases her conclusion on the fact that there had already been an actual work by John Harris entitled Lexicon Technicum: or, An Universal English Dictionary of Arts and Sciences, published in London in 1704. Shaw is correct in saying that the narrator's reference to this work is an indication of Defoe's irony. She fails to notice, however, an additional function of this allusion: by having his narrator promise to compile a work of this nature, Defoe sets up the narrator as a writer of scientific treatises, and at the same time helps establish the scientific tone of The Consolidator as a whole. Defoe in fact begins Chapter Nineteen of his General History of Discoveries and Improvements (1725-26) by citing "the learned Author of Lexicon Technicum" (250), and he devotes the next eight pages to a technically detailed account of modern advances in the study of magnets.<sup>7</sup> The overall effect of the reference to Harris's work in The Consolidator is that it helps foreground the narrator's "scientific" descriptions of fantastic machines and optical theories, which are central to Defoe's parody of scientific discourse.

Shaw's analysis of Defoe's ironic distance from his narrator deals only with roughly the first thirty-six pages

of The Consolidator. However, there are subsequent indications that the narrator is less than consistent, which reinforce Shaw's suggestion that Defoe employs an overall structural irony in The Consolidator. For example, immediately after a tirade against modern education, and specifically against its reliance on natural philosophy and demonstration (57-59), the narrator admits that "the earnest search after this thing call'd Demonstration fill'd me with Desires of seeing every thing..." (59). Shortly after this statement he again reiterates his opinion that ancient Chinese learning surpasses modern learning, and calls the latter "no more than faint Imitations, Apings, and Resemblances of what was known in those masterly [i.e., Ancient] Ages" (60). Another, less-subtle, example occurs on pages 68-69. The narrator relates the ways in which the "certain grave Philosopher" (63) he met on the moon had been persecuted, imprisoned, and pilloried for "publish[ing] some such bold Truths...from the Allegorical Relations he had of me from our World" (68); in the following paragraph, however, the narrator makes the glaring mistake of saying that his double's incarceration "happen'd before my first Visit to that World" (69). A third example occurs when he says that the lunar Crolians (who represent English Dissenters in Defoe's allegory) enjoy better political and economic success than Dissenters in his own world because

our Dissenters...have not the Advantage of a Cogitator, or thinking Engine, as they have in the Moon.--- We have the Elevator here, and are lifted up pretty much, but in the Moon they always go into the Thinking Engine upon every Emergency, and in this they out-do us of this World on every Occasion. (235-36)

When we are first introduced to the Elevator, though, the narrator is explicit about its novelty: "There are yet another sort of Machine, which I never obtained a sight of, till the last voyage I made to this Lunar Orb, and these are called Elevators..." (109).

### III

The most significant indication of Defoe's ironic distance from his narrator is the discrepancy between their respective opinions about contemporary science. This discrepancy is readily apparent to us, who can in retrospect find in Defoe's other writings evidence that he does not share the views of his voyager to the moon. As Paula Backscheider points out--and she is not the first to do so--Defoe displayed a keen interest in natural science throughout his career, from The Storm of 1704 (in which he draws extensively upon contemporary scientific writing<sup>a</sup>) to A General History of Discoveries and Improvements of 1725-26 (Backscheider 16). A good example of this interest is the

episode in the first letter of A Tour Through the Whole Island of Great Britain, in which Defoe hypothesizes about the migratory habits of the swallows he encounters at Southwold. He deduces that swallows leave Britain and migrate to Holland in winter because the insects upon which they feed die away in that season; however, he leaves for the "naturalists" to determine (Tour 80-81) how the swallows know where to migrate in search of food, and how they know that Southwold is the point on the British island nearest Holland.<sup>2</sup>

We can in fact gather more from Defoe's writings than that he was simply interested in natural philosophy: on several occasions he praises science in the most laudatory terms. For example, in Caledonia, published shortly after The Consolidator in 1706, Defoe writes

Hail Science, Nature's second Eye,

Begot on Reason by Philosophy,

Man's Telescope to all that's Deep and High;

What Infinites dost thou pursue! (qtd. in Vickers 169)

Much later in his career, he writes in A General History of Discoveries and Improvements that nature is "the Fountain of all human Knowledge, and the great Mystery for the wisest men to search into" (239-40), and that astronomy is "the perfection of human Knowledge" (v). His trust in the characteristically modern scientific practice of

experimentation can be seen when he says, referring to people who believe that "Nutmeg and Mace will grow no where but in the Isle of Banda" and that "Tea will not grow in any Dominions but those of China,"

Let the Experiments be made and the Negative prov'd, and then indeed no Man will oppose it; for Demonstration puts an end to all Arguments; but till then we must be allow'd to judge as Reason and the nature of Things direct us. (General History 307)

In this work he also says that so few useful discoveries were made in the twelfth century because

They had Philosophy without Experiment....Mathematics without Instruments....Astronomy without Demonstration....Chirurgery without Anatomy, and Physicians without the Materia Medica. (133-34)

Finally, in The Compleat English Gentleman (c. 1728-29; pub. 1890), Defoe says that science is

a public blessing to mankind [and] ought to be extended and made as difusive as possible, and should, as the Scripture says of sacred knowledge, spread over the whole earth, as waters cover the sea... (197-98)

and that science is "the most agreeable as well as the most profitable study in the world" (228).

Readers of the newly-published Consolidator, however, would have little reason to think that its author did not share the negative views of its narrator, who from the outset is concerned with "the monstrous Ignorance and Deficiencies of European Science," and who promises his

forthcoming Lexicon Technicum as a record of "all those excellent Arts [the Chinese] are Masters of" (5) which will "abate the Pride and Arrogance of our Modern Undertakers of Great Enterprizes, Authors of strange Foreign Accounts, Philosophical Transactions, and the like" (8). As his desire to improve European science indicates, the narrator himself is a projector, or at least someone intensely interested in natural philosophy and "demonstration." His praise of Lunarian science, and his corresponding criticism of European--and especially English--science is explicit and frequent. His invectives against the Royal Society and individual scientists continue throughout his narrative, ranging from his claim that "All our Philosophers are Fools, and their Transactions a parcel of empty stuff" (15) to his desire to acquaint "our Royal Society" with Chinese telescopes so "that once in 40 Years they might have been said to do something for Publick Good" (35). At the end of The Consolidator he expresses his amazement that "sundry Transactions of our Royal Society about winds" have actually "reacht so far" as Lunarian libraries (353). Individual scientists he attacks include Boyle (25, 33, 99), Bishop Wilkins (34), Newton (99), Dr. Joseph Brown (15, 353), and empirical philosophers such as Locke and Hobbes (33).

Defoe's contemporary readers, unable to gauge the author's intent by referring as we can to his later

writings, would probably have been inclined to agree with modern readers such as John F. Ross, who suggests that Defoe is actually satirizing science, or Riamund Borgmeier, who says that the narrator of The Consolidator, with his mania for projects, is "an unmistakable mouthpiece" for Defoe (118). Even Defoe's brief panegyric to science in Caledonia cannot be considered valid evidence of his positive attitude toward science, because the poem was not published in London until 1707, and even then Defoe's signature appeared only at the end of the Dedication (Moore 53). The Consolidator appeared at a time when the "new science" was a popular satiric target, and attacked in such works as Swift's recently-published Tale of a Tub (1704), to which Defoe refers at least once in The Consolidator (33).<sup>10</sup> Apart from the irony which Narelle Shaw identifies and which other internal contradictions in The Consolidator's narrative corroborate, Defoe's voyage to the moon would probably have been viewed at the time of its publication as an attack on contemporary science.<sup>11</sup> The narrator's criticisms would seem, in this respect at least, less ironic to contemporary readers than they do to us. These two divergent readings are both valid because The Consolidator is an anomaly within the Defoe canon that only we as modern readers can perceive: it is the only work which ostensibly attacks contemporary science and scientists. That The Consolidator is unique in

this respect, and that its attack on the sciences is so extensive, is itself an indication of Defoe's irony. The discrepancy between the narrator's and the author's opinions regarding contemporary science are made conspicuous because it occurs in only a single text.

It is more difficult to draw conclusions about Defoe's satiric intention regarding science than it is about Swift's, for example, whose ideological position as an "ancient" and whose repeated attacks on the new science leave little room for debate about his satiric intention. However, there is little evidence to support the view that Defoe does not exercise a structural irony in The Consolidator, or that his intentions are in fact to "abate the Pride and Arrogance" (8) of contemporary virtuosos and projectors. Circumstantial evidence that Defoe actually criticizes some aspects of science exists, but it is inconclusive. For example, Defoe condemns pedantry in The Compleat English Gentleman when he says that even if a man "is as good proficient in Experimental Philosophy as most private gentlemen and has a nice collection of rarities" and "is as well skill'd in astronomical knowledge, the motions and revolutions of the heavenly bodies as most masters in that science," that man is "NO SCHOLAR" if he lacks manners to balance his learning (200). His criticism here does not, however, suggest a disapproval of experimental science in



itself, but of an unbalanced education. The possibility that Defoe might be overtly attacking as many individual scientists as he does in The Consolidator because he considers them to be pedants is diminished when we consider that in A General History of Discoveries and Improvements he identifies Robert Boyle, whom he attacks by name more often than any other scientist in The Consolidator, as a man of "fame" and "distinction" because of his exploits into "natural [and] experimental Philosophy" (General History 238). Another possible indication that Defoe is not being ironic in his attack on science occurs in A Plan of the English Commerce (1728), where he says that "most of our Greatest Advances in Arts, Trade, and Government...are really founded upon the Inventions of others" (224-25), and supplies the example of the English wool trade, the prosperity of which is, he says, based on Flemish technology (226). In this ambiguous remark Defoe implies that English innovation and technology lag behind that of other nations, but at the same time he commends the English for their capacity to improve upon foreign innovation. In this work Defoe also "offer[s] a Scheme of Originals, for the improving Genius of our People to work upon" (224), but he mentions neither machines or technology of any kind; his "Originals" consist mainly of expanding new trade routes and reopening old ones. Related to this possible criticism of

science is a point raised by Maximillian E. Novak, who in "Defoe and the Machine Smashers" argues that even though "Defoe was a great admirer of mechanical inventions,..as a conservative economist he was opposed to any change in the pattern of employment" (289) caused by new labour-saving machines. Novak cites a passage from Defoe's Giving Alms no Charity (1704) in which he criticizes a knitting frame invented by William Lee, claiming that it could cause unemployment. Defoe does not mention contemporary scientists or their mechanical innovations in his economic analysis, however, and there is no link in The Consolidator between Defoe's fantastic machines and the problem of unemployment. The most reasonable conclusion we can make, therefore, about Defoe's attack on science in The Consolidator is that to contemporary readers this attack would probably seem less ironic than it does to us.

#### IV

We can draw more decisive conclusions, however, about Defoe's use of scientific metaphors and allusions for satiric, or at least polemical, purposes. For example, A Hymn to the Pillory (1703) begins with the lines "Hail Hir'roglyphic State Machin, Contriv'd to Punish Fancy in," and he subsequently refers to the pillory as a "Great

Engine" (line 39), a "Speaking Trumpet" (line 297), and an "Engine of the Law" (382). A few years later, in the Review for April 27, 1710 (7.14), Defoe promises to publish "fifteen large Volumes in double Folio, Entitled, CITY POLITITICS" [sic], in which he will describe "most mathematically...the several Variations of the City Compass" (or in other words, party faction), and the influence of the "Astronomical and Geographical Position or Situation of the L[ord] M[ayor']s Horses Tail" upon these variations. In the Review for July 27, 1710 (7.53), Defoe uses a motif which he had used extensively in The Consolidator for satiric effect:

Since then BLINDNESS [is] our Predominate [disease], there cannot be a greater piece of Service done to our Nation, than to assist them with SPECTACLES, and Glasses of any kind, which may clear up their National Eye-sight, and assist them to convey right Notions to their Understandings.

In a much-quoted passage from the Review for December 16, 1710 (7.114), Defoe says that

I have also, Illiterate as I am, made a little Progress in Science; I read Euclids Elements, and yet never found the Mathematical Description of a SCURRILOUS GENTLEMAN; I have read Logick, but could never see a syllogism form'd upon the Notion of it---- I went some length in Physicks, or Natural Philosophy, and could never find between the two great Ends of Nature, Generation and Corruption, one Species, out of which such a Creature could be found....

An example of Defoe's use of a scientific (or naturalistic) anecdote to make a political comment occurs in a letter he

contributed to a 1722 collection of letters from Mist's Weekly Journal. Defoe relates a parable, based on his own empirical observation, of how a colony of bees will attack a neighboring hive in order to commandeer its honey; if the attacking colony manages to "keep Possession [of the hive for] one Night, both Colonies are as good Friends next Day, and as firmly united in one common Interest, as if they had been Natives of the same Place" (1:105). He then draws the analogy between these bees and conquering nations, and says that if they who conquer what "they have no Title to, would but imitate the Example of these Brave and generous Conquerors, they might make not only themselves, but even the Subdued happy (1:105-06)." <sup>12</sup>

## V

Defoe's parody of scientific technical writing in The Consolidator is his most extensive and most developed use of science as a satiric device. His adoption of scientific language may be seen as parody because it not only imitates the style of a definable type of writing, it also ridicules that style by describing imaginary and unbelievable objects, such as a flying chariot made of feathers, a machine which allows people to solve all problems, and "Explicatory Optic-Glasses" which make visible

"Mysteries relating to Predestination, Eternal Decrees, and the like" (87-88). However, he ridicules this style only to attack his ulterior satiric targets; his satire is not directed at scientific writing itself, but at the political and religious controversies he describes with this scientific language. As we have already seen, the narrator of The Consolidator is himself a projector of sorts, and is interested not only in improving European science, but also European and particularly English political and religious life; in his own words, "I have...a great many Projects in my Head, how to bring our People to regular thinking..." (99). This unusual combination of interests alone suggests a thematic connection among the three topics. But a more specific link exists: by parodying contemporary scientific discourse, Defoe can use that discourse to describe political and religious institutions, current conflicts, and individual people. In other words, by adopting (or parodying) the language of scientists and virtuosos, Defoe expands his satiric vocabulary; he opens up for himself new and different means of attacking his opponents and their beliefs and practices.

This parody occurs in several forms and in varying degrees of intensity and consistency. In its most explicit form the narrator simply uses scientific metaphors to describe politics and religion. The second form in which it

occurs is his description of Lunarian optical theory; this theory is often used allegorically to describe Earthly religious and political doctrines. Defoe's parody of scientific writing is most foregrounded, however, in the narrator's descriptions of four fantastic machines, the Consolidator, the Cogitator, the Elevator, and the Concionazimir.

The sections in which Defoe parodies scientific technical writing are identifiable as such because the quality of the language in which they are written is conspicuously "scientific" or technical. Defoe's usual plain style, which is itself part of the seventeenth- and eighteenth-century trend towards a more accurate means with which to describe nature,<sup>13</sup> pays great attention to detail, but the technical jargon and rhetorical patterns of the language in these "scientific" sections of the text is not simply part of Defoe's "plain style." This language becomes in fact specialized. In these sections Defoe "speaks [the] language" of scientists (Defoe, Present State of the Parties, qtd. in Downie 123), just as he does that of High Church extremists in The Shortest Way with the Dissenters. The exaggerated technical quality of these sections becomes evident if they are compared with the kind of writing they parody. Robert Boyle's New Experiments Physico-Mechanical touching the Spring of the Air (Oxford, 1660) is in many

ways typical of such writing. This work deals primarily with forty-three experiments Boyle and Robert Hooke performed in Oxford in the late 1650's. The experiments were "Made, for the most part, in a New Pneumatical Engine" (Boyle 1), which Boyle describes in some detail in the volume's dedicatory letter to his nephew, Viscount Dungarvan. This engine's basic function was to create a controlled vacuum in which the experimenters could place various substances and objects, in order to test the effects of the vacuum on those objects.<sup>14</sup> Boyle begins his description by telling his nephew that the engine "consists of two principal parts; a glass vessel, and a pump to draw the air out of it" (7). He continues:

The shape of the glass, you will find expressed in the first figure of the annexed scheme [see Appendix]. And as for the size of it, it contained about 30 wine quarts, each of them containing near two pound (of 16 ounces to the pound) of water....

At the top of the vessel A, you may observe a round hole, whose diameter BC is of about four inches; and whereof the orifice is encircled with a lip of glass, almost an inch high....

The use of the lip is to sustain the cover delineated in the second figure; where DE points out a brass ring, so cast, as that it doth cover the lip BC of the first figure, and is cemented on, upon it, with a strong and close cement. To the inward tapering orifice of this ring (which is about three inches over) are exquisitely ground the sides of the brass stopple FG; so that the concave superficies of the one, and the convex of the other, may touch one

another in so many places, as may leave as little access, as possible, to the external air. And in the midst of this cover is left a hole HI, of about half an inch over, invironed also with a ring or socket of the same metal, and fitted likewise with a brass stopple K, made in the form of the key of a stop-cock, and exactly ground into the hole HI it is to fill; so as that, though it be turned round in the cavity it possesses, it will not let in the air, and yet may be put in or taken out at pleasure, for uses to be hereafter mentioned. In order to some of which, it is perforated with a little hole 8, traversing the whole thickness of it at the lower end; through which, and a little brass ring L fastened to one side (no matter which) of the bottom of the stopple FG, a string 8,9,10, might pass, to be employed to move some things in the capacity of the emptied vessel, without anywhere unstopping it....

The undermost remaining parts consist of a frame, and of a sucking-pump, or, as we formerly called it, an air-pump, supported by it. The frame is of wood, small but very strong, consisting of three legs, 1,1,1, so placed, that one side of it may stand perpendicular, that the free motion of the hand may not be hindered. In the midst of which frame is transversely nailed a board 2,2,2, which may not improperly be called a midriff; upon which rests, and to which is strongly fastened, the main part of the pump itself, which is the only thing remaining to be described.

The pump consists of four parts....  
(Boyle 7-8)

The description of this engine is an appropriate model against which to compare Defoe's descriptions of his fantastic machines for several reasons. First, it is taken from a well-known work by one of the foremost scientists of



the period,<sup>15</sup> one whom Defoe refers to on several occasions in The Consolidator and elsewhere. Secondly, Boyle was by the time he published his New Experiments a prominent member of the Royal Society, and by 1700 had published many papers in its Philosophical Transactions. Thirdly, the text itself is reasonably lucid, even though Boyle frequently refers the reader to the "annexed scheme," or diagram. Much technical writing of the period is far more convoluted, awkward, and unclear than this excerpt, unless the reader is versed in the relevant technical vocabulary or background knowledge.<sup>16</sup>

Several rhetorical characteristics of Boyle's description are readily apparent. Most obviously, his description contains a high frequency of concrete nouns, since he is here describing an apparatus with a large number of individual components. Boyle does more than simply describe the parts of his engine, however; he also explains three types of relationships or interactions that are independent of naming the substantive components. The first of these relationships is that which the individual components have with each other. Two examples of this occur in the third paragraph: "The use of the lip is to sustain the cover delineated in the second figure..." and "...so that the concave superficies of the one, and the convex of the other, may touch one another in so many places...." The second rhetorical relationship is that between the machine

itself and the object it is designed to test, the air. Again, in the second paragraph we find two examples of this: first, the "superfices" of the brass ring DE and the brass stopple FG "touch one another in so many places, as may leave as little access, as possible, to the external air"; and second, the stopple K prevents air from entering the hole HI. The third rhetorical relationship is the experimenter's implied interaction with the machine. (This interaction is simply implied in Boyle's initial description of his engine; we do not actually read of the experimenters themselves until Boyle describes the actual experiments.) At the end of the second paragraph Boyle describes the string 8,9,10 which is "to be employed [by the experimenter] to move some things in the capacity of the emptied vessel, without anywhere unstopping it...." In the fourth paragraph he describes the three supporting legs of the engine, "so placed, that one side of it may stand perpendicular [i.e., with no protruding leg], that the free motion of the [experimenter's] hand may not be hindered."

The most conspicuous form of Defoe's parody is his narrator's descriptions of the fantastic machines he encounters on the moon (or in the case of the Consolidator, en route to the moon). Riamund Borgmeier acknowledges that "Contemporary natural philosophy becomes manifest as an object of satire in the various machines" (120) described in

The Consolidator, but he does not recognize the irony underlying the descriptions of these machines. Defoe had parodied the extreme rhetoric of High Church writers in The Shortest Way with the Dissenters, and in a defense of this technique published as an appendix to the second edition of Shortest Way, he explains that he mimicked both the "contents" and the "manner of the style" of these writers. Parody in The Consolidator is similar in nature, although in this case Defoe's intentions are different. The content is the more obvious component: Defoe has his narrator explain many "scientific" phenomena, from new machines to astronomical discoveries. In his descriptions of Lunarian "engines," however, Defoe also mimics the rhetorical characteristics of Boyle's description as outlined above. This parody of technical scientific writing is not as specific as his parody of High Church propagandists in The Shortest Way, such as Henry Sacheverell and Charles Leslie. We would be overstating the case if we claimed that in The Consolidator Defoe consciously imitated Boyle's particular rhetorical patterns. New Experiments is, for reasons previously stated, simply a convenient example of contemporary scientific writing. Granted, there are several significant differences between Boyle's and Defoe's texts. For example, Defoe describes his engines as being in action, whereas Boyle's description is virtually static; Defoe

explicitly states the function of various components, whereas Boyle, for the most part, does not. The similarities between the two texts, however, outweigh the differences, and they are adequately conspicuous to suggest to the reader that Defoe wishes to mimic this genre.

Defoe may have selected only certain rhetorical features of scientific discourse to parody because an overly-thorough imitation of technical scientific writing would have interfered with his narrative and allegory. For example, his descriptions of fantastic machines cannot be isolated totally from the narrative which surrounds them, because he often incorporates allegorical accounts of English and European historical events into the descriptions themselves. The initial account of the Consolidator stretches over nineteen pages (36-55), and in this passage we get a thinly-disguised account of the first English civil war, the execution of Charles I, and the accession of Charles II and James II. Defoe compensates for this interpolation of narrative and parody by self-consciously drawing attention to the more concentrated initial descriptions of three of the machines. Several paragraphs after his first reference to the Consolidator, the narrator apologizes with "I hope the Reader will bear with the Description for the sake of the Novelty, since I assure him

such things as these are not to be seen in every Country" (37); he again apologizes for his "dull Description" (96) of the Cogitator; and when we are first told of the Concionazimir, the narrator says

I had some Thoughts to have given the Reader a Diagram of this piece of Art, but as I am a bad Drafts Man, I have not yet been able so exactly to describe it, as that a Scheme can be drawn, but to the best of my Skill, take it as follows. (153)

He then proceeds to describe the machine. The absent "Diagram" or "Scheme" would no doubt be similar to those of the narrator's proposed Lexicon Technicum (5-6), or to that appended to Boyle's New Experiments. The only description of a fantastic machine which is not self-consciously introduced in this manner is that of the Elevator. It is also the only description which does not contain any concrete nouns. The Elevator is "wholly applied to the Head, and Works by Injection; the chief Influence being on what we call Fancy, or Imagination":

This is indeed an admirable Engine, 'tis composed of an Hundred Thousand rational Consequences, Five times the Number of Conjectures, Supposes, and Probabilities, besides an innumerable Company of fluttering Suggestions, and Injections, which hover round the Imagination, and are all taken in as fast as they can be Concocted and Digested there: These are form'd into Ideas, and some of those so well put together, so exactly shaped, so well drest and set out by the Additional Fire of Fancy, that it is no uncommon thing for the Person to be so intirely divided by himself [as to] be able

to distinguish between Reality and  
Representation.... (111)

"Fire of Fancy" is the most concrete noun phrase in the entire passage. The abstract quality of this description detracts slightly from its mimetic effect, even though it is rhetorically similar to Boyle's description of his pneumatic engine, particularly in its attention to the interaction between the imagination and the "Consequences,..Conjectures, Supposes, and Probabilities...."

The descriptions of the other three machines, on the other hand, all contain a high frequency of concrete nouns; they are actual descriptions of substantive devices. The rhetorical relationships found in Boyle's description of his engine are also present in the moon-voyager's descriptions. The Consolidator is

a certain Engine formed in the shape of a Chariot, on the Backs of two vast Bodies with extended Wings, which spread about 50 Yards in Breadth, compos'd of Feathers so nicely put together, that no Air could pass; and as the Bodies were made of Lunar Earth which would bear the Fire, the Cavities were fill'd with an Ambient Flame, which fed on a certain Spirit deposited in a proper quantity, to last out the Voyage; and this Fire so order'd as to move about such Springs and Wheels as kept the Wings in a most exact and regular Motion, always ascendant; thus the Person being placed in this airy Chariot, drinks a certain dozing Draught, that throws him into a gentle Slumber, and Dreaming all the way, never wakes till he comes to his Journey's end.  
(36)

This description is much more concerned with physical components, and their interaction with each other, than that of the Elevator. The "Person" is of course the object this engine is designed to transport; the presence of the experimenter is implied by the passive "Cavities were fill'd" and "Person being placed."<sup>17</sup>

The narrator's description of the Cogitator displays similar rhetorical characteristics:

This Machine I am speaking of, contains a Multitude of strange Springs and Screws, and a Man that puts himself into it, is very insensibly carried into Vast Speculations, Reflexions, and regular Debates with himself....

And First, the Person that is seated here feels some pain in passing some Negative Springs, that are wound up, effectually to shut out all Injecting, Disturbing Thoughts; and the better to prepare him for the Operation that is to follow, and this is without doubt a very rational way; for when a Man can absolutely shut out all manner of thinking, but what he is upon, he shall think the more Intensely upon the one object before him.

This Operation past, here are certain Screws that draw direct Lines from every Angle of the Engine to the Brain of the Man, and at the same time, other direct Lines to his Eyes; at the other end of which Lines, there are Glasses which convey or reflect the Objects the Person is desirous to think upon.

The main Wheels are turn'd, which wind up according to their several Offices; this the Memory, that the Understanding, a third the Will, a fourth the thinking Faculty; and these being put all into regular Motions,

pointed by direct Lines to their proper Objects, [the person is able to think clearly]. (97-98)

"Put[ing] himself into" the Cogitator is in fact ambiguous: it can mean both the reflexive to put oneself into, in which the object of the verb "to put" is also the subject of the same verb, and it can also mean the transitive to allow himself to be put into. At any rate, the simple distinction between subject and experimenter is not jeopardized in this description because Defoe does identify both an agent and a receiver of the action. Either meaning indicates that, as in the description of the Consolidator, the "Person" is the object that this machine is designed to act upon.

According to the narrator of The Consolidator, the Concionazimir is "truly a strange Engine";

when a Clergy-Man gets into the Inside of it, and beats it, it Roars, and makes such a terrible Noise from the several Cavities, that 'tis heard a long way....

'Tis a hollow Vessel, large enough to hold the biggest Clergy-Man in the Nation; it is generally an Octogon in Figure, open before, from the Wast [sic] upward, but whole at the Back, with a Flat extended over it for Reverberation, or doubling the Sound;.. 'tis very Mathematically contriv'd, erected on a Pedestal like a Windmill, and has a pair of winding Stairs up to it, like those at the great Tun at Hiedlebergh. (153-54)

This description lacks any indication of the experimenter's role in using the Concionazimir, although the subject's interaction with the device is clear. It is in fact probable



in this case that the subject and the experimenter are the same person, or in other words that the subject performs the experiment on himself. In the description of the Cogitator, this dual capacity is ambiguous; in this description, however, it is fairly clear that the Clergyman "gets into it, and beats it," which suggests that the Concionazimir is activated from the position of the subject, and not by an external technician.

Defoe's descriptions of these fantastic machines are the most developed form of "speaking [the] language" of scientists in The Consolidator, just as he spoke the language of High Church propagandists in The Shortest Way. In these descriptions he mimics both the content and the rhetorical patterns of scientific technical writing. He continues his mimicry, albeit in a less elaborate form, in his narrator's repeated references to Lunarian optics and to other types of scientific study. In these instances there is little attempt to imitate any specific rhetorical patterns; only the scientific "content," and not the "style" (to use Defoe's own schematic of his parody in The Shortest Way) is present in these references. For example, the narrator provides a "Critical Examination into the Nature, Uses, and Advantages...of the Eyesight" (63) which is over thirty pages long, and his speculation into the reasons why the wings of the Consolidator provide a gentle landing on the

moon is replete with scientific jargon:

This [ability of the wings] may happen from an Alteration of Centers, and Gravity having past a certain Line, the Equipoise changes its Tendency, the Magnetick Quality being beyond it, it inclines of Course, and pursues a Center, which it finds in the Lunar World, and lands us safe upon the Surface. (55)

However, this rhetorical simplicity does not preclude Defoe's use of Lunarian optics and other scientific references to comment on Terrestrial political and religious issues. Both his more elaborate and less elaborate forms of scientific parody have satiric functions.

## Chapter 2

### Science and Political Satire

Although Defoe goes to considerable lengths to parody scientific writing in The Consolidator, the political and religious controversies of his day are his actual satiric targets. Of course, it is often difficult to distinguish the two spheres, especially when discussing late seventeenth- and early eighteenth-century English history. The Consolidator is not the only one of Defoe's works which testifies to this conflation. "Political" acts and factions as described in this work frequently have "religious" origins, and "religious" beliefs frequently have significant "political" ramifications. For instance, much of Defoe's polemics in The Consolidator centers upon the controversy over the Occasional Conformity Bill of 1702; consequently, any distinction between this work's political and religious satire is in many cases reductive. For the sake of analysis, however, we can isolate references which deal specifically with politics or with religion in more easily identifiable forms than the narrator's discussion of the controversy over the "Laws to exclude the Crolians from any part of the

Administration, unless they submitted to some Religious Tests and Ceremonies which were prescrib'd them" (215) and its attendant ideological distinctions.

# I

Defoe's political criticism, like his narrator's attack on science, occurs both explicitly and implicitly. Explicit references to English politics-- that is, ones in which the narrator digresses from his relation of Chinese and Lunarian politics to make reference to his own world-- include his description of "an heretical Book as to European Politicks" (13) which he finds in the Chinese royal library, and which expounds the view that "the People...place the Power of Government in the Most worthy Person they can find" (13); Defoe has his narrator comment that

I thought fit to leave it where I found it, least our excellent Tracts of Sir Robert Filmer, Dr. Hammond, L...y, S....l,<sup>[18]</sup> and Others, who have so learnedly treated of the more useful Doctrine of Passive Obedience, Divine Right, &c. should be blasphem'd by the mob, [and] grow into Contempt of the People.... (14)

Another example of overt political criticism occurs after the narrator relates the "new Model of the Crolians" (268) devised by the philosopher who acts as his guide throughout much of his Lunar journey. This model (briefly outlined on

pages 250-52) is a program designed to unify the Crolians and thereby strengthen their economic and political influence in the Solunarian country. After learning of the success of this program, the narrator says that

it forc'd me to reflect upon the Affairs in our own Country; Well, said I, 'tis happy for England that our Dissenters have not this Spirit of Union, and Largeness of Heart among them; for if they were not a Narrow, mean-Spirited, friend-Betraying, poor-Neglecting People, they might ha' been every way as Safe, as Considerable, as Regarded and as Numerous as the Crolians in the Moon.... (270-71)

Even though these references to Terrestrial political controversies are explicit in that they are not masked in Defoe's allegory, they are still ironic. The first example is simply the opposite of what Defoe believed. The second is more complex, especially considering Defoe's sense of betrayal at his fellow Dissenters' failure to perceive and acknowledge his aims in publishing The Shortest Way With the Dissenters. We would be misrepresenting Defoe, however, if we denied the irony of "'tis happy for England that our Dissenters have not this Spirit of Union...."

The most prevalent type of implicit political criticism is that effected by Defoe's allegorical narrative itself. He is certainly not innovative in this respect; writers since Lucian, and especially during the seventeenth- and early eighteenth-centuries, had been placing satiric

allegories within the framework of the voyage to the moon. If Defoe is innovative at all in his satiric method in The Consolidator, it is in his appropriation of scientific discourse in order to attack aspects of his society other than science. Even if science were never mentioned in The Consolidator the work would still be satiric. But the scientific interests of the narrator, and his continual references to science, supplement the more global satire established by the generic framework. Indeed, the narrator's interests are appropriate to the genre: he is a projector, both in the scientific sense and in the more general sense of someone who desires to improve his society through new economic and political schemes. On the moon the narrator experiences much to satisfy both of these interests, and he is eager to share his new knowledge with his fellows on Earth. His whole narrative project is, in his own words, to apply what he learns on the moon to "the Country from whence I came, and for whose Instruction I have design'd these Sheets" (189).

Basically, Defoe's parody of scientific rhetoric in The Consolidator supplements his allegorical satire by enabling him to expand his satiric vocabulary. By parodying contemporary scientific discourse, he can describe political institutions, events, and other satiric objects as phenomena susceptible to scientific observation. This rhetorical

relationship does not simply mean that Defoe's apparent criticism of science translates directly into criticism of particular political beliefs, actions, or public figures. Instead, it means that, by establishing the "scientific" tone of his narrative, Defoe can use scientific metaphors and analogies as satiric devices. Despite Defoe's ironic undermining, the narrator retains some authority as a scientist, and therefore his use of scientific metaphors and analogies does not seem inappropriate to the reader. Of course, the audience of The Consolidator is not expected to trust his more bizarre claims, such as that he saw the words "The Verge of Life and Death is here./ 'Tis best to know where it is, but not how far..." (89) and "REVELATION" (90) through a Lunarian "Second-sight" glass (89). The narrator of The Consolidator does retain some authority despite Defoe's irony because he is apparently learned in the new sciences. In this respect he is similar to the teller of Swift's Tale of a Tub, who appears to write with some authority as an erudite "modern" scholar despite Swift's structural irony. What authority Defoe's narrator retains is based on his ability to apply his scientific interests and knowledge to political and religious phenomena. Defoe's ironic treatment of his narrator does not vitiate this authority. On the contrary, his ostensible attack on science indicates his ability to manipulate the narrator's opinions

and rhetorical idiosyncrasies to further his own satiric program.

## II

The types of scientific language used to describe political (and religious) phenomena correspond to the different forms of Defoe's parody of such language. These types are the description of fantastic machines, references to Lunarian optics, and miscellaneous scientific metaphors. The first significant example of a political doctrine described with scientific metaphors occurs immediately after the narrator discovers the "heretical Book" in the Chinese royal library in Tonquin. After praising several English proponents of passive obedience, he says

I take the Doctrines of Passive Obedience, &c. among the States-men, to be like the Copernican System of the Earths Motion among Philosophers; which, though it be contrary to all ancient Knowledge, and not capable of Demonstration, yet is adher'd to in general, because by this they can better solve, and give a more rational Account of several dark Phenomena in Nature, than they could before.  
(14)

Defoe's attack on passive obedience and its proponents is achieved through the narrator's claim that the doctrine supplies a "more rational Account of several dark Phenomena in Nature"-- specifically, political obedience to the Crown



and religious obedience to the Church. The narrator criticizes Copernican cosmology because it does not satisfy either ancient ("though it be contrary to all ancient Knowledge") or modern ("and not capable of Demonstration") philosophers. This deficiency, however, does not jeopardize the theory's ability to provide a "rational Account" of the structure of the universe. In fact, the narrator states that the reason the Copernican system is adhered to is because by it philosophers "can better solve, and give a more rational Account of several dark Phenomena in Nature"; that is, the theory is not necessarily grounded in scientific fact, but it nonetheless provides satisfactory answers to scientific questions. The metaphorical implication is that the doctrine of passive obedience provides similarly unsubstantial justification for political obedience to the Crown. This justification is, like that for the Copernican system, neither "contrary to all ancient Knowledge, [nor] capable of Demonstration."

Another significant instance of political ideas or events described with miscellaneous scientific metaphors is the narrator's relation of the advances which the Lunarians have made in the study of "State Polity" (73):

State Polity, in all its Meanders,  
Shifts, Turns, Tricks, and Contraries, are  
[sic] so exactly Delineated and Describ'd  
[through Lunarian telescopes], That they are  
in hopes in time to draw a pair of Globes

out, to bring all those things to a certainty.<sup>[19]</sup>

Not but that it made some Puzzle, even among these Clear-sighted Nations, to determine what Figure the Plans and Drafts of this undiscover'd World of Mysteries [i.e., "State Polity"] ought to be describ'd in: Some were of Opinion, it ought to be an Irregular Centagon, a Figure with an Hundred Cones or Angles: Since the Unaccountables of this State-Science, are hid in a Million of Undiscover'd Corners; as the Craft, Subtilty and Hypocrisy of Knaves and Courtiers have concealed them, never to be found out, but by this wonderful D[evil]l-scope, which seem'd to threaten a perfect Discovery of all those Nudities, which have lain in the Embrio, and false Conceptions of Abortive Policy, ever since the Foundation of the World.

Some were of Opinion, this Plan ought to be Circular, and in a Globular form, since it was on all sides alike, full of dark Spots, untrod Mazes, waking Mischiefs, and sleeping Mysteries; and being delineated like the Globes display'd, would discover all the Lines of Wickedness to the Eye at one view....(73-74)

The narrator's explicit reference to "State-Science" is elaborated by several types of scientific metaphors. First, "State Polity" is described in astronomical terms. The mention of the "Globes" (presumably similar to astronomical globes constructed during the seventeenth- and eighteenth-centuries), and the phrases "this undiscover'd World of Mysteries..." and "on all sides alike, full of dark Spots, [and] untrod Mazes..." suggest early scientific descriptions of the moon.<sup>20</sup> Second, a group of metaphors

related to childbirth ("Nudities," "Embrio," "Conceptions," "Abortive") suggests a pathological, or at least medical, component to the study of "State Polity." Third, and perhaps most importantly, this passage is self-conscious in its attempt to find a suitable language in which to describe "State Polity." The Lunarians' attempts are not unlike those of Bacon and, later, the Royal Society, to discover an accurate "scientific" language. Even though the narrator of The Consolidator says that politics are "so exactly Delineated and Describ'd," the Lunarians have yet to "bring all those things to a certainty"; that is, despite their considerable progress in the field, they have yet ("they are in hopes in time") to devise a language suitable to the study of state politics. The Lunarians have some difficulty in determining "what Figure the Plans and Drafts" of state politics "ought to be describ'd in"; their search for accuracy leads them to suggest elaborate geometrical representations such as an "Irregular Centagon," or the simpler circle or globe. The appropriate language, in this case, would lead to thorough, scientific, knowledge: "being delineated like the Globes display'd," an accurate scientific language would "discover all the Lines of Wickedness to the Eye at one view...." The variety of metaphors (astronomical, medical, linguistic) and the Lunarian debate over an appropriate language in which to

describe the "Meanders, Shifts, Turns, Tricks, and Contraries" of state politics suggest Defoe's own experimentation with scientific language. He is, in effect, commenting on his own rhetorical attempts at revealing the "Craft, Subtilty, and Hypocrisy of Knaves and Courtiers...."

Subsequent examples of politics described with scientific metaphors include the description of complicity between Dissenters and High Churchmen as

a piece of Clockwork; the Dissenters are the Dial-Plate, and the High-Church the Movement, the Wheel within the Wheels, the Spring and the Screw to bring all things to Motion, and make the Hand on the Dial-plate point which way the Dissenters please. (84)

This extended mechanical metaphor suggests two types of complicity: first, by practicing occasional conformity, the Dissenters were weakening their own political, economic, and religious unity; secondly, the Dissenters were as oblivious to the irony of The Shortest Way as were the High Churchmen.<sup>21</sup> Minor examples include "...of all the Quarrels, the Factions and Parties of any Nation thought worth while to fall out for, none were ever in reality so light, in effect so heavy, in appearance so great, in substance so small, in name so terrible, in nature so trifling..." as those over the Solunarian and Nolunarian union (119; emphasis Defoe's); "The [Lunarian] King, who was now made but a meer Engine, or Machine, [was] screw'd up or down by

this false Counsellor to act his approaching Destruction..." (159; emphasis Defoe's); and occasional references to political intrigues as "Machines" (233) and "Engines" (245).

The second type of scientific language Defoe uses to attack contemporary politics centers on the narrator's interest in, and frequent reference to, Lunarian theories and applications of optics.<sup>22</sup> In general, Defoe uses the efficiency of Lunarian telescopes, and the enhanced optical capacity they provide to those who use them, as a means of exposing the inherent contradictions and flaws in his political opponents' beliefs and practices. The narrator first encounters these "wonderful Telescopes" in China, where they were introduced by the Lunarian Mira-cho-cho-lasmo, and he immediately recognizes the potential of applying Lunarian advances in optics to terrestrial problems:

...it had no doubt been an admirable Experiment, to have given us a general Advantage from all their acquir'd Knowledge in those Regions, where no doubt several useful Discoveries are daily made by the Men of Thought for the Improvement of all sorts of humane Understanding.... (34-35)

On the moon, the narrator and his guide (the "certain grave Philosopher") in fact perform an experiment in which they demonstrate the capabilities of these lunar telescopes. They actually devise their experiment to test the various linguistic and notational schemes designed to describe

"State Polity." After rejecting the geometrical representation (referred to earlier), and an alternative "Hyro-glyphical" scheme (74), they resolve that "the Drafts must be made single, tho' not dividing the Governments, yet dividing the Arts of Governing into proper distinct Schemes" (75). The narrator then turns his telescope "to'ards our own World" to test their hypothesis (75; emphasis Defoe's). The ensuing relation of what he sees is a continuous litany of instances of the "Craft, Subtilty and Hypocrisy of Knaves and Courtiers" (74). The catalog of topical political references is ten pages long (75-85), and includes general references to "Occasional Bills" and "Passive Obedience" (81), and to members of Parliament who will "spend 5000 l. to be Chosen, that cannot get a Groat Honestly by setting there" (82); also in this section specific references are made to European politics, such as the "Partition Treaties" involved in the War of the Spanish Succession (78) and explicit mention of the roles of Spain, Bavaria, France, Holland, and England in that war (79-80). Defoe even mentions the names of individuals, such as "M. Ld. N" (78) and the "Duke of S--y" (79).<sup>23</sup> Throughout this section, the enlightening capacity of Lunarian telescopes is repeatedly emphasized by interjections such as "So looking still on that vast Map, by the help of these Magnifying-Glasses, I saw..." (76), "The Map of State Policy [is] no where to be

discover'd but...by this prodigious Invention..." (79), and "a long Sight, or a large Lunar Perspective, will make all these things not only plain in Fact, but Rational and Justifiable to all the World" (83).

Subsequent references to the application of Lunarian optics to either lunar or terrestrial political controversies occur throughout the narrative. As in the section describing the results of the "Experiment," the capacity to see clearly is identified with political wisdom. Two such instances occur which deal with the political and economic influence of specific groups of people within the Solunarian nation. In the first, the narrator expresses his surprise that despite the "Variety of those Perspective Glasses I have mentioned, the clearness of the Air, and consequently of the Head, in this Lunar World," the Crolians (who represent the English Dissenters) had been so "Moon Blind" that they

could not see it was always in their Power  
if they had but pursued their own Interest,  
and made use of those...legal Opportunities  
which lay before them, to put themselves in  
a Posture, as that the Government it self  
should think them a Body too big to be  
insulted, and find it their Interest to keep  
Measures with them. (All quotations 238)

In the second example telescopes are not explicitly mentioned, but the optical motif is used in direct reference to "Bloutegondégours, which signifies Men with two Tongues,

or in English, Stock-Jobbing Brokers" (258-59). The narrator exposes this profession's role in "all manner of things, Publick as well as Private, whether the Revenue, the Publick Funds, Loans, Annuities, Bear-Skins, or any thing" (260), and he criticizes their eventual influence over members of Parliament (261). Their growing control over the government, according to the narrator, eventually leads to its collapse and exposes the country to the dangers of foreign invasion (263). He in turn criticizes the Solunarian public for not perceiving the Bloutegondegours' influence:

And yet in the very Moon where, as I have noted the, People [sic] are so exceeding clear Sighted, and have such vast helps to their perceptive Faculties, such Mists are sometimes cast before the publick Understanding, that they cannot see the general Interest. (265; emphasis Defoe's)

The "vast helps to [the Lunarians'] perceptive Faculties" are, presumably, the "Perspective Glasses" mentioned in the first example. In both instances Defoe identifies the efficiency of lunar optics with the ability to perceive changes in the political climate.

### III

Defoe's descriptions of and subsequent references to fantastic machines also contribute to his political satire. The Cogitator and the Consolidator are the two most



important machines in this respect. Even though the initial descriptions of these machines are Defoe's most elaborate adoption of scientific language, subsequent references to them do not display similar rhetorical complexity. The machines reappear frequently throughout the narrative, however, and each assumes its own satiric function based on its specific mechanical qualities. The satiric function of the Cogitator, or "Chair of Reflection" (97), is similar to that of lunarian optics in that this machine is associated with clarity of thought and with political acumen. The Cogitator actually contains optical components, such as "Glasses which convey or reflect the Objects the Person [who uses the Cogitator] is desirous to think upon" (98). The narrator is also quick to realize the Cogitator's potential for solving earthly problems, and shortly after describing it for his readers he speculates on its usefulness: he complains that "a Mechanick Chair of Reflection is the only Remedy" that can "help Boyl, Norris, Manton, Hammond, Tillotson, and all the learned Race, help Phylosophy, Divinity, Physicks, Oeconomicks..." (99).<sup>24</sup> He also realizes the political advantages of such a machine: "what Volumes might be writ...if we consider the wondrous Usefulness of this Engine in all humane Affairs; as of War, Peace, Justice, Injuries, Passion, Love, Marriage, Trade, Policy, and Religion" (99-100).

Reference to the Cogitator's ability to eliminate "Confusion of Thoughts" (105) in the political sphere occurs frequently in the section (98-109) which follows the initial description of the machine itself. For example, the narrator says that

In the State, it [the Cogitator] saves a Government from many Inconveniences; it checks immoderate Ambition, stops Wars, Navies and Expeditions; especially it prevents Members making long Speeches when they have nothing to say; it keeps back Rebellions, Insurrections, Clashings of Houses, Occasional Bills, Tacking, &c. (106)

(His comment that "This Engine prevents all sorts of Lunacies, Love-Frenzies, and Melancholy-Madness," including "State-Madness" [107], like his use of childbirth metaphors in his earlier description of "State Polity" [74], suggests that political irrationality has pathological implications.) Additionally, more specific allusions to English and European political events in the section immediately following the Cogitator's initial description include the following:

Had the Duke of Bavaria been in our Engine, he would never have begun a Quarrel, which he knew all the Powers of Europe were concern'd to suppress...

Had the Elector of Saxony past the Operation of this Engine, he would never have beggar'd a Rich Electorate, to ruin a beggar'd Crown, nor sold himself for a Kingdom hardly worth any Man's taking: He would never have made himself less than he was, in hopes of being really no greater; and stept down from a Protestant Duke, and

Imperial Elector, to be a Nominal Mock King  
with a Shadow of Power, and a Name without  
Honour, Dignity or Strength. (102-103)

and

Some that have been forward to have us  
proceed The Shortest Way with the Scots, may  
be said to stand in great need of this Chair  
of Reflection... (103)

In such attacks the narrator implies that the Hapsburgs have unnecessarily complicated their involvement in the Spanish Succession, and that some English reject the proposed union with Scotland, because they lack the rational advantages which the Cogitator supplies. Subsequent references to this machine imply the same rational deficiency in specific groups of Lunarians, who allegorically correspond to groups of terrestrials Defoe wishes to attack. For example, when the Crolians misunderstand the "certain grave Philosopher's" advice on how to unite, he "brings them a Thinking Press, or Cogitator" (248) to clarify their reasoning; also, the narrator criticizes the Crolians' inaction against the "hot Solunarians" (who represent High Church extremists) by saying that "indeed here was nothing done but what the Laws justify'd, what Reason directed, and what had the Crolians but made use of the Cogitator, they would have done 40 Years before" (273-74); and a more general example is his remark that, referring to opponents of the union between the Solunarian and Nolunarian nations (England and Scotland),

"some...Solunarians...never meddle with [thinking] except when they come to the Engine" (343).

The Consolidator is the second Lunarian machine which Defoe exploits for satiric purposes. It contributes to Defoe's political satire because it becomes an allegorical figure for the English House of Commons, and he uses it to attack both present and past Parliaments. The initial description of the Consolidator suggests the physical structure of the Commons, and the ensuing section suggests its political structure. For example, the initial description tells us that the Consolidator is composed of "two vast Bodies with extended Wings, which spread about 50 Yards in Breadth, compos'd of Feathers so nicely put together, that no Air could pass" (36); in the passage immediately following, entitled "Of the Consolidator," we are told that

The number of Feathers are just 513, they are all of a length and breadth exactly, which is absolutely necessary to the floating Figure, or else one side or any one part being wider or longer than the rest, it would interrupt the motion of the whole Engine; only there is one extraordinary Feather which, as there is an odd one in the number, is placed in the Center, and is the Handle, or rather Rudder to the whole Machine: This Feather is every way larger than its Fellows, 'tis almost as long and broad again; but above all, its Quill or Head is much larger, and it has as it were several small bushing Feathers round the bottom of it, which all make but one presiding or superintendent Feather, to guide, regulate, and pilot the whole body.

Nor are these common Feathers, but they are pickt and cull'd out of all parts of the Lunar Country, by the Command of the Prince....[The] Employment they are put to being of so great us to the Publick...it would be very ill done if, when the King sends his Letters about the Nation, to pick him up the best Feathers they can lay their Hands on, they should send weak, decay'd or half-grown Feathers, and yet sometimes it happens so.... (37-38)

In these descriptions, the wings of the Consolidator represent the left and right sides of the House, the feathers represent the members, the center feather represents the Speaker, and the picking of the feathers represents the electoral process. Later in his narrative Defoe will elaborate this basic technical schematic of the Consolidator to satirize the parliament sitting at the time of The Consolidator's publication.

The section describing the feathers (38-44) eventually develops into an allegorical relation of the Puritan Revolution, the death of Charles I, and the accessions of Charles II and James II, in which the various components of the engine correspond to their allegorical counterparts. The satirical aspects of this allegory are extended by repeated reference to the "voyages to the moon" that the various monarchs take in successive Consolidators.<sup>25</sup> In each case the narrator explains how either the poor quality of the feathers, or a monarch's tampering with their traditional function, affects the

performance of the Consolidators. For example, the Puritan Revolution is allegorized in the following manner:

...once there were such rotten Feathers collected, whether it was a bad Year for Feathers, or whether the People who gather'd them had a mind to abuse their King; but the Feathers were so bad, the Engine was good for nothing, but broke before it got half way; and by a double Misfortune, this happen'd to be at an unlucky time, when the King himself had resolv'd on a Voyage, or Flight to the Moon; but being deceiv'd, by the unhappy Miscarriage of the deficient Feathers, he fell down from so great a height, that he struck himself against his own Palace, and beat his Head off. (38-39)

Relations of similar "voyages" for Charles II and James II specify how the feathers were "quite worn out, and good for nothing" (39), "strong...and so stiff" (39), and "distort[ed]" and "dislocat[ed]" (41). James's attempts at controlling electoral processes in 1688, and the Revolution of that year, are represented by the Solunarian monarch's desire to "fly up to the Moon without the [Consolidator]," and to have "strange Engines contriv'd, and Methods propos'd" to further this desire; however, he did not succeed because "his Subjects seeing him going to ruin himself, and by Consequence them too, unanimously took Arms" (44).

Defoe also describes the contemporary parliament under Anne with the technical vocabulary developed in this short allegorical history of the Stuarts since Charles I.

"The [Solunarian] Queen and her present Ministers" continue "on Principles of Confederacy" the war entered by the previous king, and the narrator "cannot omit some...Remarks" about her "new Consolidator" (320):

I. It is to be observ'd, that this last Consolidator was in a manner quite worn out.---It had indeed continu'd but 3 Year, which was the stated Time by Law, but it had been so Hurry'd, so Party Rid, so often had been up in the Moon, and made so many such extravagant Flights, and unnecessary Voyages thither, that it began to be exceedingly worn and defective.

2. This occasion'd that the light fluttering Feathers, and the fermented Feathers made strange Work of it; nay, sometimes they were so hot, they were like to ha' ruin'd the whole Fabrick, and had it not been for the great Feather in the Center, and a few Negative Feathers who were Wiser than the rest, all the Machines had been broke to pieces, and the whole Nation put into a most strange Confusion.

Sometimes their Motion was so violent and precipitant, that there were great apprehensions of its being set on Fire by its own Velocity, for swiftness of Motion is allow'd by the Sages and so so's to produce Fire, as in Wheels, Mills and several sorts of Mechanick Engines which are frequently Fir'd, and so in Thoughts, Brains, Assemblies, Consolidators, and all such combustible Things. (321-322)

The original italics of this extended passage foreground references to the "voyages" of the Queen's Parliament, references to its feathers (including the "great Feather in the Center," which suggests Robert Harley, speaker of the House from 1701 to 1705), and imagery associated with the

initial mechanical description of the Consolidator (36). The italics also highlight veiled political complaints. Most of these center on the "worn" condition of the feathers, but "Hurry'd" and the "violent and precipitant" motion of this Consolidator also suggest immanent self-destruction. Defoe's allegorical representation of this Parliament, and his satire of it, is general, not specific. Except for the "great Feather" who holds this Consolidator together, Defoe has little positive to say in his allegory about the machine which, less than two years prior to the appearance of The Consolidator, sent him to Newgate Prison and the pillory.



### Chapter 3

#### Science and Religious Satire

Defoe's use of scientific language to supplement religious satire is analogous to his use of such language to supplement political satire. Again, it is often difficult to differentiate political and religious satire in The Consolidator, not only because of the inextricability of politics and religion in the eighteenth-century in general, but also because much of what Defoe has to say about religious controversies is subsumed into his political criticism. For example, his comparison of the doctrine of passive obedience to Copernican cosmology (14) could be legitimately placed under either a "political" or a "religious" rubric. His reference to English Roman Catholics as "Anti-every-body-arians" (41-42) is another instance that is difficult to categorize. We can isolate instances, however, in which Defoe refers to issues that are primarily theological in nature and that have little direct bearing on the political events of his day, such as his explicit charge that "Atheists are universally Fools" (29). The types of scientific language used in The Consolidator to describe

religious phenomena are descriptions of fantastic machines and explanations of Lunarian optics. Most references to religious issues fall within these two types; there are not enough occurrences of miscellaneous scientific metaphors applied to religion to justify a separate category. The descriptions of fantastic machines and explanations of Lunarian optics supplement Defoe's religious satire as they supplement his political satire: they enable him to expand his satiric vocabulary, thereby giving him greater satiric control over religious beliefs, personalities, and controversial issues.

The efficiency of Lunarian optics enables the narrator of The Consolidator to perceive religious issues differently from his earth-bound opponents, and consequently, to gain the polemic advantage. The narrator refers to religious issues in conjunction with Lunarian optics most frequently in the passage immediately following his perception of earthly political life through the telescope that he turns "to'ards our own World" (75). After describing what he sees of the political world, the narrator shifts his attention to the spiritual: he says that through these

strange Engines of Light it could not but be very pleasing, to distinguish plainly betwixt Being and Matter, and to come to a Determination, in the so long Canvast Dispute of Substance, vel Materialis, vel Spiritualis; and I can solidly affirm, That

in all our Contention between Entity and Non-Entity, there is so little worth meddling with, that had we had these Glasses some Ages ago, we should have left troubling our Heads with it. (86)

Despite his claim that "as to Religion, it was the same [on the moon as on earth] equally resign'd to and concluded in Faith and Redemption" (91), he nonetheless challenges "whoever pleases to take a Journey, or Voyage, or Flight up to these Lunar Regions" so that they will "presently be convinc'd, of the Reasonableness of Immaterial Substance, and the Immortality, as well as the Immateriality of the Soul" (86). The ensuing passage (86-95) is in structure and tone much like the earlier catalogue of topical political events, but it contains no references to specific individuals.

Defoe's satire in this section is aimed most frequently at extreme and doctrinaire theological positions. The narrator reminds us of the efficiency of the telescope through which he perceives the "Nature and Consequences of [these] Secret Mysteries" (87-88), and of the advantages of his critical perspective, by introducing his attacks on these positions with either verbs of vision ("read," "see") or explicit mention of Lunarian telescopes. Predestination is the first issue the narrator enlightens for us. Through the "Explicatory Optick-Glasses," he tells us, "are read strange Mysteries relating to Predestination, Eternal

Decrees, and the like" (87-88). Here Defoe criticizes both the belief that people are totally subject to predestination, and the antithetical belief that we are immune from predestination:

Here, 'tis plainly prov'd, That  
Predestination is, in spite of all  
Enthusiastic Pretences, so intirely  
committed into Man's Power, that whoever  
pleases to hang himself to day, won't Live  
till to Morrow; no, though Forty  
Predestination Prophets were to tell him,  
His time was not yet come. (88)

The narrator's farcical example of a person's hanging him- or herself despite the warnings of forty enthusiastic "Predestination Prophets" balances his extreme claim that predestination is "intirely committed into Man's Power...." At the end of the same paragraph Defoe supplies a similarly absurd example: a person "shall Die...notwithstanding that it is in Man's Power to throw himself into the Water, and be Drown'd" (88-89).<sup>26</sup> The second theological issue Defoe uses Lunarian optics to comment on is eschatology, the "Leap in the Dark" (89). In this instance Defoe attacks those who attempt to explain rationally what happens after death, instead of relying on revelation as a means of explaining this mystery. The narrator says

As to seeing beyond Death, all the  
Glasses I lookt into for that purpose, made  
but little of it; and these were the only  
Tubes [on the moon] that I found Defective;  
for here I could discern nothing but Clouds,  
Mists, and thick dark hazy Weather....[The]  
Conclusion of it [i.e., of speculations

about the afterlife], to all such as gave themselves the trouble of making out those foolish things call'd Inferences, was always Look up; upon which, turning one of their Glasses Up, and erecting the Point of it towards the Zenith, I saw these Words [sic] in the Air, REVELATION, in large Capital Letters.

I had like to have rais'd the Mob upon me for looking upright with this Glass; for this, they said, was prying into the Mysteries of the Great Eye of the World....  
(89-90)

He goes on to say that the "Great Eye of the World" is, according to Lunarian theology, the "Hieroglyphical" image of God (91). In this instance the remarkable efficiency of Lunarian telescopes fails even to reveal the secrets of what happens after death, and all attempts to speculate about this mystery using rational arguments ("those foolish things call'd Inferences") fail, until the narrator sees a sufficient answer "towards the Zenith." Defoe comments on this theological controversy in two related ways. First, in specifying this instance as the only failure of Lunarian telescopes to reveal solutions to earthly controversies, he suggests that it is impossible to solve the debate over what happens following "the leap in the Dark." Secondly, in his appeal to "REVELATION" as the most tenable solution to the debate, he places Dissenting doctrine over patristic doctrine, which would rely on more rational, logical means to solve the mystery of death. Two further religious issues

that Defoe comments on with the aid of Lunarian optical theories are "the Demonstrations of the Soul's Existence" (92-93) and the belief that "all Inferior Life is a Degree of" the Great Eye (95).

Defoe also uses the descriptions of fantastic machines to comment on religious issues. These descriptions work in the same manner as those used in his political satire: each machine assumes its own satiric function according to its specific mechanical qualities. References to the Cogitator, Elevators, and Concionazimir all contribute to Defoe's religious satire; those to the Consolidator do not, since the machine acts mainly as an allegorical figure for the English House of Commons. The religious insight gained through use of the Cogitator is not as specific or as significant as the political insight it facilitates. For example, general references include the narrator's conviction that the Cogitator "would be a[n]... effectual Cure to our Deism, Atheism, Scepticism, and all other Scisms...(98), and his acknowledgement of the "wondrous Usefulness of this Engine in all humane Affairs; as of War, Peace, Justice, Injuries, Passion, Love, Marriage, Trade, Policy, and Religion" (100). The only instance in which the narrator suggests that specific individuals could gain theological insight by using the Cogitator is his claim that this machine is the "only

Remedy" for Thomas Manton and John Tillotson, and, in fact, for "Divinity" in general (99).

The Elevators' mechanical (and satiric) function, like that of the Cogitator, is to provide increased insight into various kinds of knowledge. Immediately after describing the possible applications of the Cogitator to the political problems of his own country, the narrator of The Consolidator introduces the Elevators, and specifies the type of knowledge they are designed to increase:

There are yet another sort of Machine, which I never obtained a sight of, till the last Voyage I made to this Lunar Orb, and these are called Elevators: The Mechanick Operations of these are wonderful, and helpt by Fire; by which the Sences are raised to all the strange Extreame we can imagine, and whereby the Intelligent Soul is made to converse with its own Species, whether embody'd or not. (109)

The subsequent passage (109-112), which explains how the Elevators work, is an allegorical description of our "converse" with the "World of Spirits" (109) and their role, in the form of "Guardian Angels" and "waking kind Assistant wandring Spirits" (110), in foreboding evil occurrences. After he reveals his own views<sup>27</sup> on this "converse," the narrator relates how the Elevators can aid us in our converse with spirits: "This Engine is wholly applied to the Head, and Works by Injection; the chief Influence being on what we call Fancy, or Imagination...." The imagination is

then excited so that the "rational Consequences..., Conjectures, Supposes, and Probabilities," of which the Elevators are comprised, enable the user to converse freely with disembodied spirits (111).

If, however, an "Additional Fire of Fancy" interferes with the normal operation of the engine, the user will become "intirely [sic] deceived by himself, not knowing the brat of his own Begetting, nor able to distinguish between Reality and Representation" (111). The result of this deception is that "some People [talk] to Images of their own forming, and [see] more Devils and Spectres than ever appear'd" (112). This extreme behavior corresponds to the "Enthusiasm and conceited Revelation" that the narrator identifies earlier in the passage (110). If, on the other hand, the imagination is properly excited by the components of the Elevator, these delusions do not occur:

But the more Genuine and perfect Use of these vast Elevations of the Fancy...is to guide Mankind to [a] Fore-sight of things...and by this exceeding Knowledge, a Man shall forebode to himself approaching Evil or Good, so as to avoid this, or be in the way of that; and what if I should say, That the Notices of these things are not only frequent, but constant, and require nothing of us, but to make use of this Elevator, to keep our Eyes, our Ears, and our Fancies open to the hints; and observe them.... (112)

In his description of the misuse of the Elevators, Defoe is criticizing the "Enthusiasm" and superfluous "Fire of Fancy"



that deceives those who make too much of portentous events. As demonstrated by the earlier "Explicatory Optick-Glass" episode (87-89), his own views on such events (and in this case, his narrator's as well) are more moderate: Providence "require[s] nothing of us, but to...keep our Eyes, our Ears, and our Fancies open to the hints."

The narrator's description of the Concionazimir, "a certain Ecclesiastic Engine which is usual in cases of general Alarm, as the Churches Signal of Universal Tumult" (153), is the final example of Defoe's use of fantastic machines to attack his adversaries. In the case of the Concionazimir, his target is neither strictly religious nor political. As "general Alarm" and "Universal Tumult" suggest, Defoe uses the Concionazimir to criticize Anglican reactions to Dissenting and Catholic threats to their theological and political security. As an example of such reactions Defoe specifies (156) the refusal of the Archbishop of Canterbury and six other bishops to read from the pulpit James's Declaration of Indulgence (May 1688), which would have suspended the Test Act of 1673 and therefore have allowed Dissenters and Catholics to hold public office without swearing allegiance to the Church.<sup>28</sup>

The initial description of this engine establishes it as an allegorical figure for the Anglican pulpit.<sup>29</sup> The Concionazimir is

truly a strange Engine, and when a Clergy-Man gets into the Insides of it, and beats it, it Roars, and makes such a terrible Noise from the several Cavities, that 'tis heard a long way....

'Tis a hollow Vessel, large enough to hold the biggest Clergy-Man in the Nation; it is generally an Octagon in Figure, open before, from the West upward, but whole at the Back, with a Flat extended over it for Reverberation, or doubling the Sound; doubling and redoubling, being frequently thought necessary to be made use of on these occasions; 'tis very Mathematically contriv'd, erected on a Pedestal of Wood like a Wind-Mil, and has a pair of winding Stairs up to it.... (153-54)

The physical shape of the Concionazimir, of course, suggests a pulpit, and words and phrases such as "roars," "terrible Noise," "Reverberation," and "doubling and redoubling" suggest that the Clergy's responses to any "general Alarm" (153) are unnecessarily exaggerated. Defoe continues his allegory in the subsequent paragraph by allowing the physical and mechanical characteristics of the Concionazimir to represent specific complaints against the Church. The narrator says that "I could make some Hieroglyphical Discourses upon" the Concionazimir "from these References" (154) to the preceding physical description; those "Discourses" are

1. That as [the Concionazimir] is erected on a Pedestal like a Wind-Mill, so it is no new thing for the Clergy, who are the only Persons permitted to make use of it, to make it turn round with the Wind, and serve to all the Points of the Compass. 2. As the Flat over it assists to encrease [sic] the Sound,

by forming a kind of hollow, or cavity proper to that purpose, so there is a certain natural hollowness, or emptiness, made use of sometimes in it, by the Gentlemen of the Gown, which serves exceedingly to the propogation of all sorts of Clamour, Noise, Railing, and Disturbance. 3.As the Stairs to it go winding up [a great distance], so...these ascending Steps [are] frequently employ'd to raise People up to all sorts of Enthusiasms, spiritual Intoxications, mad and extravagant Action, high exalted Flights, Precipitations, and all kinds of Ecclesiastick Drunkenness and Excesses. (154-55)

Defoe's complaints, which all accord with his general criticism of the Church's reaction to threats to its security, emerge in these "Hieroglyphical Discourses."

First, that the Concionazimir is "erected on a Pedestal like a Wind-Mill" and that it is able to "serve to all the Points of the Compass" suggests the Church's inconstancy, or that it will adopt any position according to its present needs. (Defoe's subsequent reference to the Seven Bishops conflict corroborates this complaint.) Next, the "certain natural hollowness, or emptiness" that "serves exceedingly to the propogation of all sorts of Clamour, Noise, Railing, and Disturbance" suggests unnecessary or excessive belligerence on the part of the Church, most of which, in Defoe's view, manifests itself in extreme polemical rhetoric. Finally, the stairs that the clergy must climb in order to enter the Concionazimir are "frequently employ'd to raise People," by means of the clergyman inside the engine, to "all kinds of

Ecclesiastick Drunkenness and Excesses...." It is precisely these religious excesses that Defoe criticizes with his descriptions of Lunarian optics and fantastic machines.

## Conclusion

Defoe's criticism of contemporary science and scientists in The Consolidator is clearly ironic. Defoe's attitude toward science in his other writings is in general positive, and he uses scientific allusions of various types elsewhere in his works for polemical purposes. Defoe's parody of contemporary philosophical transactions in The Consolidator, however, is his most elaborate use of scientific language for satiric purposes. His descriptions of fantastic machines, his explanations of Lunarian optics, and his use of miscellaneous scientific metaphors all contribute to his attacks on his political and religious adversaries; these different types of scientific discourse expand his satiric vocabulary. Defoe's adoption (or parody) of scientific language performs this expanding function because the narrator of The Consolidator has some authority as a scientist: he is knowledgeable in the new sciences (or is at least familiar with their jargon), he believes in the modern practice of empirical demonstration, and he actually travels to the moon in order to acquire knowledge that he feels will improve life in his native country. This

authority allows Defoe to use scientific language to comment on political and religious controversies because when the narrator compares, either explicitly or implicitly, terrestrial or lunar political or religious phenomena to scientific phenomena (as in his comparison of passive obedience to Copernican cosmology, or his descriptions of various lunar Consolidators), his critical authority as scientist is transferred to politics and religion. Defoe's undercutting of the narrator by allowing him to hold fallacious opinions about contemporary science and by incorporating internal contradictions in the narrative does not attenuate The Consolidator's social satire, because the narrator's attitude toward science, like the generic framework within which Defoe places his rather transparent allegorical interpretation of English and European current events, is simply another device contrived to achieve his social satire.

We can speculate on the reasons why Defoe develops scientific language in The Consolidator to the degree he does. Walter R. Wortman points out that Defoe's "techniques of satire were often matters of whim, expediency, and momentary inspiration..." (100). This observation applies particularly well to The Consolidator because it is the most elaborate example of Defoe's use of scientific language. It is possible that Defoe adopts scientific language because he

saw it as a natural extension of the satiric voyage to the moon; previous writers of such voyages had, after all, frequently referred to scientific phenomena, and in his search for new satiric weapons Defoe developed his narrator's interest in the physical world into a similarly critical interest in the social world. It is also possible that, after his incarceration for the trenchant Shortest Way with the Dissenters (published less than two years before The Consolidator), Defoe experimented with types of satire he thought would be less offensive to the authorities; parodying philosophical transactions would have been less offensive than parodying the rhetoric of a faction that held considerable influence in Queen Anne's government.<sup>30</sup> It is also possible that in his ostensible criticism of science Defoe simply followed the vogue of Butler, Shadwell, Swift, and others. If The Consolidator is part of this vogue, Defoe's irony gains added complexity because he achieves his satiric ends partly by appropriating the critical tone of his literary adversaries. At any rate, Defoe's ironic criticism of science, and its metaphoric and allegorical application to political and religious controversy, is innovative.

## Notes

<sup>1</sup>Although Payne's catalogue lists titles from both Defoe's and the Rev. Phillips Farewell's libraries, Heidenreich attributes ownership of the works on natural philosophy and related subjects to Defoe, and, like many of his biographers, says that Defoe "cherished" his interest in the experimental sciences "since his school-days" (XXIII).

<sup>2</sup>Following Johnson's lead, Eve Tavor, in "Fictional Facts and Science in Defoe and Camus' Plague Year," contrasts the epistemological concerns of Defoe's H.F. and Camus' Rieux, the narrator of La Peste. She concludes that "H.F.'s Journal reflects an earlier phase of science, a phase when science was still absorbed in defining its functions and its methods" (167); H.F. accepts that his knowledge is only probable, "not certain" (163), in contrast to Rieux, who subscribes to a positivistic view of scientific facts.

<sup>3</sup>Erich Kahler, in The Inward Turn of Narrative (1973), anticipates Snow's conclusions, but simply says that Robinson Crusoe is "a scientific empiricist...who tells his story by tracing the minute stages of the happenings" (91) and that scientific empiricism is among the motives which make Defoe's narrators "observe matters which had previously been left in darkness" (98), referring to Defoe's formal realism.

<sup>4</sup>In quoting The Consolidator and other seventeenth- and eighteenth-century texts I have retained all printing conventions except the use of italics (except where otherwise noted) and of the long "s," and I have enclosed in square brackets any necessary clarifications of archaic spelling or usage.

<sup>5</sup>See Nicolson (Voyages 94-98; World in the Moon 9-10) for Wilkins' use of contemporary scientific theories. Other popular seventeenth-century voyages to the moon which deal extensively with contemporary science (both factual and imaginary) include Francis Godwin's The Man in the Moon (1638) and Margaret Cavendish's Description of a New World, Called the Blazing World (1666).

<sup>6</sup>Defoe used the moon as a satiric setting on several other occasions besides The Consolidator, but these works are of little interest from a scientific perspective. Several pamphlets composed of sections from The Consolidator were published in 1705, and an allegorical essay from the



Review (7.15 [Apr. 29 1710]) was reprinted in Boston in 1721 with the title News from the Moon. In addition, Serious Reflections During the Life and Suprizing Adventures of Robinson Crusoe (1720) contains an appendix of Crusoe's "Vision of the Angelick World," which, as the title suggests, deals mainly with religion. For textual and publication details of the Consolidator pamphlets, see articles by Bain and Kennedy; for News from the Moon, articles by Davis and Greenough.

<sup>7</sup>Shaw also discusses (393) Defoe's use of Harris's Lexicon as a source of technical information in several of his later works, such as The Political History of the Devil (London, 1726) 384-85 and An Essay Upon Literature (London, 1726) 120-26.

<sup>8</sup>See Backscheider 561, n. 5 for Defoe's sources of scientific information in The Storm.

<sup>9</sup>See articles by Richard Garnett and R.D.A. Newbury for debate over the originality of Defoe's theory.

<sup>10</sup>John F. Ross supplies an extensive discussion (12-13; 37-55) of the relationship between The Consolidator and Swift's Tale.

<sup>11</sup>Despite Nicolson's claim that "The Consolidator provoked many replies and discussions in the periodicals" (Voyages 275), I have been unable to locate any which mention the work's scientific aspects.

<sup>12</sup>In the letter directly preceding the one on bees, Defoe speculates on the cause of the sound which meteors occasionally produce, and he debunks the common conception that the plague is "propagated by [the] noxious Vapours" (1:103) of a meteor; at the same time, he grants that meteors and other natural occurrences can have "ominous Import" (1:101), or that they can portend tragedy. Defoe also wrote a letter on eclipses for the Weekly Journal (see 4:184-187).

<sup>13</sup>E. Anthony James (18-19) provides a useful survey of the debate over the Royal Society's stylistic influence on Defoe.

<sup>14</sup>Thomas Birch, editor of Boyle's Works (London, 5 vols., 1744; new ed., 6 vols., 1772) and author of the first Life of Boyle (1744; rptd. in the new ed. of Works), summarizes New Experiments as follows:

In [New Experiments Boyle] discovered and demonstrated the elastic power or spring of the air, and by this means exploded the notion of a Fuga Vacui, and shewed, that the strange effects, which were before ascribed [sic] to that imaginary cause, arise merely from the native self-expansion of the air. The extent of which elastic expansion he found divers ways to measure by his engine, which likewise discovers the influence which the air hath upon flame, smoke, and fire; that it hath none in magnetical operations; that it is probably greatly interspersed in the pores of water, and compressed by the incumbent atmosphere even in those close recesses: what operation the exsuction of the air hath on other liquors, as oil, wine, spirit of vinegar, milk, eggs, spirit of urine, solution of tartar, and spirit of wine: the gravity and expansion of the air under water: the effect of the air in [sic] the vibrations of pendulums, and in the propagation of sounds: that fumes and vapours ascend by reason of the gravity of the ambient air, and not from their own positive levity: the nature of suction, the cause of filtration, and the rising of the water in siphons: the nature of respiration, illustrated by trials made on several kinds of animals, and the effects of the air in the operations of corrosive liquors. (Works lx-lxi)

<sup>1a</sup>Douglas McKie, who has written the introduction to a 1965 facsimile edition of Boyle's Works, calls the New Experiments "one of the great classics of seventeenth-century science," and says that "it [carried] its author at once into the front rank of his scientific contemporaries" (X). McKie lists immediate reactions from Thomas Hobbes (in Dialogus Physicus) and Franciscus Linus (in Tractatus de corporum inseparabilitate) as examples of the work's popularity. Oliver Payne's sales catalogue (ed. Helmut Heidenreich) lists four works by Boyle, although New Experiments is not one of them.

<sup>1b</sup>Some particularly extreme examples reprinted in John Lowthorp's three-volume abridgement of the Philosophical Transactions and Collections, To the End of 1700 are two essays on "Exact Portable Watches," by M. Hugen and by Dr. Goth. Gill. Leibnitz (1:465-66, 466-67); "A Flying Chariot," by Fr. Lana (1:500); and the anonymous "An Hydrolic Engine" (1:544-45). An example from Hugen's essay, which is accompanied by an illustration, is "The upper Plate of the Watch is AB: The Circular Ballance-Wheel CD, of which the Arbor is EF: The Spring turned Spirally, GHM, fastened to the Arbor of the Ballance-Wheel in M, and to the piece that is fast to the Watch-Plate, in G, all the Spires or Windings of the Spring being free without touching any thing. NOPQ, is the Cock, in which one of the Pivots of the

Ballance-Wheel turns; RS, is one of the Indented-Wheels of the Watch having a Ballancing Motion...." (1:465). An example from Lana is "[Since] the Weight of the Air is 1/640 part of the Weight of a like quantity of Water, [Lana] concludes certainly, That if we could make a Vessel of Glass or other Matter that might weigh less than the Air that is in it, and should draw out all of it's [sic] Air, this Vessel would be lighter in Specie than Air itself, and, therefore would Swim in it and Ascend on High....[T]he Surface of the Vessel will be 616 Square Feet, and the Brass [of which it is to be made] will Weigh no more than 1848 Ounces; Whereas the Content will be 1437 1/2 Cub. Feet, and that Quantity of Air will Weigh 2155 2/3 Ounces...." (1:500).

<sup>17</sup>Marjorie Nicolson points out (with caution) that Defoe "anticipated the gasoline age" (Voyages 185-86) because his flying chariot consumes "a fuel that could be stored and carried 'in a proper quantity to last the voyage'" (186).

<sup>18</sup>Probably Charles Leslie and Henry Sacheverell, or George Savile, Marquis of Halifax.

<sup>19</sup>Nicolson reports that celestial globes representing various cosmologies were quite popular in the seventeenth century. She also adds that Sir Christopher Wren built the first globe of the moon in 1661, at the request of Charles II (A World 6-8).

<sup>20</sup>Nicolson (A World 15-18) provides short samples of Galileo's, Bacon's, and Kepler's descriptions of the moon.

<sup>21</sup>Paula Backscheider discusses Defoe's views on both of these issues (85; 100, 134-35).

<sup>22</sup>In Voyages to the Moon Nicolson says nothing about Defoe's references to optics, which is surprising, considering that Newton Demands the Muse, her study of the influence of Newton's Opticks on eighteenth-century English poetry and criticism, was published only two years before Voyages.

<sup>23</sup>Probably Daniel Finch, Earl of Nottingham, and Victor Amadeus II, Duke of Savoy.

<sup>24</sup>Edward Norris (1663-1726), physician, and Fellow of the Royal Society (from 1695) and Royal College of Physicians (from 1716); Thomas Manton (1620-77), popular

Presbyterian preacher who delivered sermons in St. Giles, Cripplegate, where Defoe spent his childhood; Anthony Hammond (1668-1738), pamphleteer, Member of Parliament, supporter of Robert Harley, and Fellow of the Royal Society (from 1698); John Tillotson (1630-1694), Archbishop of Canterbury (from 1691) and Fellow of the Royal Society (from 1672).

<sup>25</sup>As John F. Ross suggests, "to take a voyage to the moon" has several meanings in The Consolidator. Depending on the context in which it is used, it can mean either "the normal process of English government," or it can "represent attempts by the Stuarts to reach absolute power" (75). Defoe uses the phrase to mean both in the section describing the feathers. Ross also suggests two other meanings for "voyage to the moon": "it is a mere means of getting a superior civilization," and "it is a contemptuous characterization of the dark intellectual flights of wits, philosophers, and freethinkers" (75). For examples of the first, see Consolidator 34, 52, 188; for the second, Consolidator 176.

<sup>26</sup>Defoe's own position on predestination, and the related idea of Providence, was more moderate than either of the extremes he attacks here. For example, in A Journal of the Plague Year (1722) he criticizes Muslim notions of extreme predestination (33), and says that residents of London who did not take sensible precautions against the plague, "with a kind of Turkish predestinarianism...would say, if it pleased God to strike them, it was all one whether they went abroad or stayed at home; they could not escape it, and therefore they went boldly about, even into infected houses and infected company; visited sick people; and, in short, lay in the beds with their wives or relations when they were infected. And what was the consequence, but the same that is the consequence in Turkey, and in those countries where they do those things-- namely, that they were infected too, and died by hundreds and thousands?" (204). In Serious Reflections during the Life and Surprising Adventures of Robinson Crusoe (1720), he says that "To be utterly careless of ourselves...and talk of trusting Providence, is a Lethargy of the worst Nature; for as we are to trust Providence with our Estates, but to use at the same Time, all Diligence in our Callings, so we are to trust Providence with our Safety, but with our Eyes open to all its necessary Cautions, Warnings, and Instructions..." (221).

<sup>27</sup>The narrator of The Consolidator admits that "I always believ'd [in] a converse of Spirits, and...I never

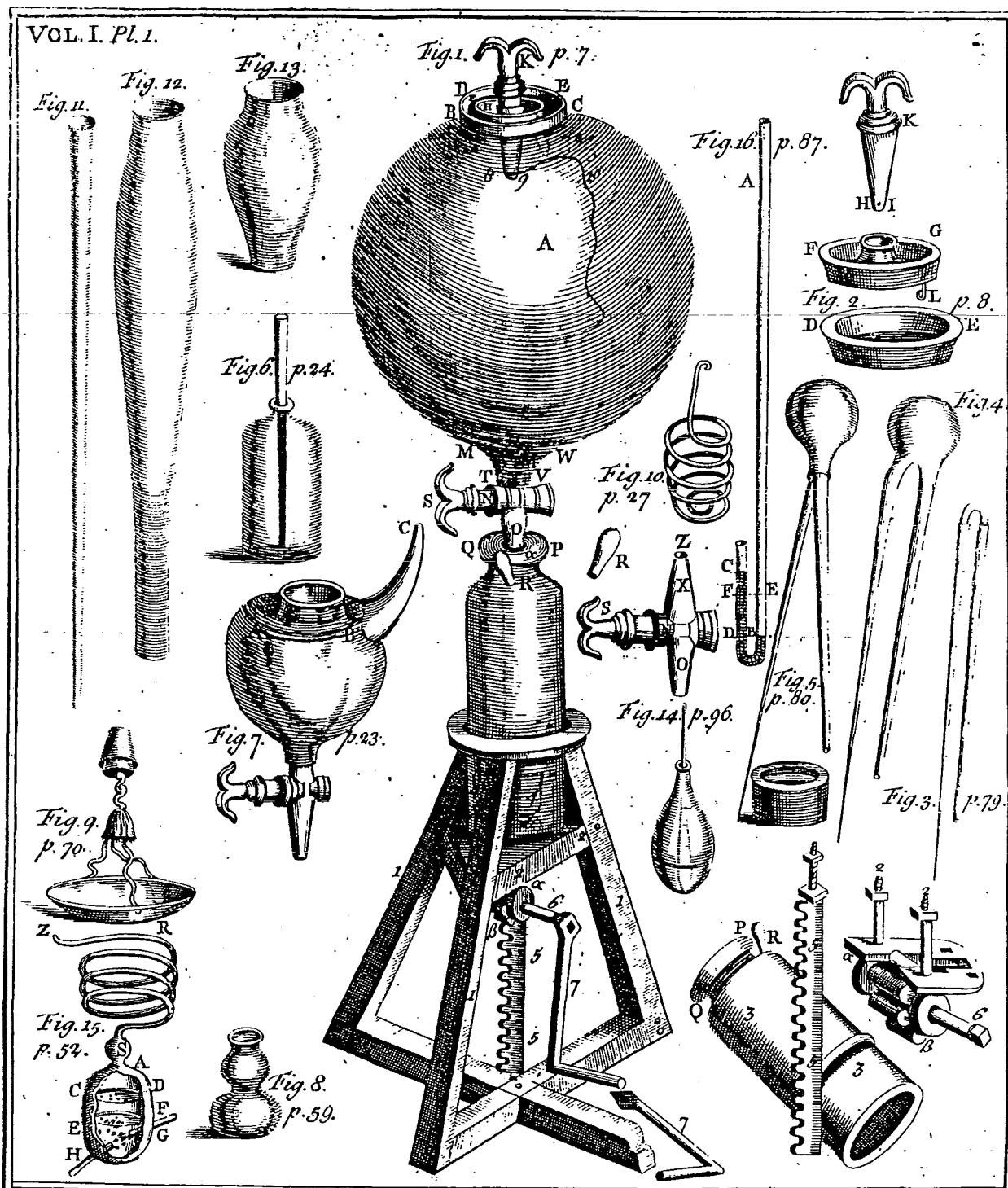
saw any reason to doubt the Existent State of the Spirit before [it is] embody'd, any more than I did of its Immortality after it shall be uncas'd..." (109-10). This view is remarkably similar to that expressed by Defoe in An Essay on the History and Reality of Apparitions (1727): "As there is a Converse of Spirits, an Intelligence, or call it what you please, between our Spirits embodied and cased up in Flesh, and the Spirits unembodied;..why should it be thought so strange a thing, that those Spirits should be able to take upon them an Out-side or Case?...If they can assume a visible Form, as I see no Reason to say they cannot, there is no room then to doubt of the Reality of their appearing..." (4-5).

<sup>28</sup>At this point in Defoe's allegory, "a powerful Prince from beyond the Sea...who was allied by Marriage to the Crown" (155) has agreed to aid those Solunarians wishing to depose the present king. The passage that suggests the Seven Bishops controversy reads "During this interval [the Solunarians'] Behavior was quite altered at home, the Doctrine of absolute Submission and Non-Resistance was heard no more among them, the Concionazimir beat daily to tell all the People they should stand up to defend the Rights of the Church, and that it was time to look about them for the Abrograzians were upon them" (156). The Abrograzians allegorically represent English and European Roman Catholics.

<sup>29</sup>John F. Ross points out that the Concionazimir exhibits verbal "echoes and transmuted borrowings" from Swift's Caledonia pulpit in Tale of a Tub (Ross 45); however, Defoe's pulpit is Anglican, while Swift's is Presbyterian.

<sup>30</sup>Paula Backscheider notes that Defoe's writing in the years immediately following his prosecution for The Shortest Way with the Dissenters "changed in purpose, focus, and tone" (125). The Consolidator is typical of this change as Backscheider outlines it: "On the simplest level [Defoe's writing in 1703 and 1704] moved from attempts to explain and justify The Shortest Way, then to understanding what happened, then to restoring his reputation and clarifying his position..." (125). Although she does not mention changes in Defoe's satirical strategies, she does say that in this period "Defoe revealed his personal reactions and moods in connotative words and phrases" (125). It is also important to remember that Defoe was allowed to leave Newgate Prison only upon supplying sureties that he would be of good behavior for a period of seven years after his release. This requirement was discharged in July 1704, however (see Backscheider 110, 124).

Appendix: Plate 1 from Boyle's New Experiments. Rptd  
in vol. 1 of Works, 1772.



## Primary Works Cited

- Boyle, Robert. New Experiments Physico-Mechanical Touching the Spring of the Air, and its Effects, &c. Oxford, 1660. Works. Vol. 1. Ed. Thomas Birch. New ed. London, 1772. 6 vols.
- Defoe, Daniel. The Compleat English Gentleman. Ed. Karl Bulbring. London, 1890.
- . The Consolidator. London, 1705. Ed. Malcolm J. Bosse. Foundations of the Novel. New York: Garland, 1972.
- . Defoe's Review. Ed. Arthur W. Secord. N.p.: Facsimile Text Society, 1938. 9 vols. New York: AMS, 1965. 22 vols.
- . An Essay on the History and Reality of Apparitions. London, 1727.
- . General History of Discoveries and Improvements. 1725-1726. Writings of Daniel Defoe. Reel 15. London: University Microfilms, [1966]. 38 reels.
- . A Hymn to the Pillory. Daniel Defoe. Ed. James T. Boulton. New York: Schocken, 1965. 101-109.
- . A Journal of the Plague Year. 1722. Ed. Anthony Burgess and Christopher Bristow. Harmondsworth: Penguin, 1966.
- . Plan of the English Commerce. London, 1728. Stratford-upon-Avon: Shakespeare Head, 1928.
- . Serious Reflections during the Life and Surprising Adventures of Robinson Crusoe, with His Vision of the Angelick World. London, 1720.
- . A Tour Through the Whole Island of Great Britain. 1724-1726. Ed. Pat Rogers. Harmondsworth: Penguin, 1971.
- Mist's Weekly Journal. London, 1722. 4 vols.
- Philosophical Transactions and Collections, to the End of the Year 1700. Abr. John Lowthorp. 3rd ed. London, 1722. 3 vols.

## Secondary Works Cited

- Backscheider, Paula R. Daniel Defoe: His Life. Baltimore and London: Johns Hopkins UP, 1989.
- Bain, Rodney M. "Daniel Defoe's Imaginary Voyages to the Moon." PMLA 81 (1966): 377-380.
- Borgmeier, Raimund. "Memoirs of Sundry Transactions from the World in the Moon-- drei satirische Mondreisen von Zeitgenossen Gullivers." Scholastic Midwifery: Studien zum Saterichen in der englischen Literature 1600-1800. Ed. Jan Eden Peters and T.M. Stein. Tübingen: Narr, 1989. 113-127.
- Davis, Andrew McFarland. "A Bibliographical Puzzle." Publications of the Colonial Society of Massachusetts 13 (1910): 2-15.
- Downie, J.A. "Defoe's Shortest Way With the Dissenters: Irony, Intention, and Reader Response." Prose Studies 9.2 (1986): 120-139.
- Garnett, Richard. "Defoe and the Swallows." Times Literary Supplement 13 Feb. 1969: 161-62.
- Girdler, Lew. "Defoe's Education at Newington Green Academy." Studies in Philology 50 (1953): 573-91.
- Greenough, Chester N. "Defoe in Boston." Publications of the Colonial Society of Massachusetts 28 (1935): 461-493.
- Heidenreich, Helmut, ed. The Libraries of Daniel Defoe and Phillips Farewell: Oliver Payne's Sales Catalogue (1731). Berlin: W. Hildebrand, 1970.
- James, E. Anthony. Daniel Defoe's Many Voices. Amsterdam: Rodopi, 1972.
- Johnson, Clifford. "Defoe's Reaction to Enlightenment Secularism: A Journal of the Plague Year." Enlightenment Essays 3 (1972): 169-177.
- Kahler, Erich. The Inward Turn of Narrative. Trans. Richard Winston and Clara Winston. Bollingen Series 83. Princeton: Princeton UP, 1973.
- Kennedy, Joyce Deveau. "The Case of Defoe's Authorship of the Consolidator Pamphlets." Huntington Library Quarterly 37: 77-89.



- McKie, Douglas. Introduction. Works. By Robert Boyle. Vol. 1. Ed. Thomas Birch. Hildesheim: Georg Olms, 1965. 6 vols.
- Moore, J.R. A Checklist of the Writings of Daniel Defoe. 2nd ed. Hamden, Conn.: Archon, 1971.
- Nicolson, Marjorie Hope. Voyages to the Moon. New York: Macmillan, 1948.
- . A World in the Moon: A Study of the Changing Attitude toward the Moon in the Seventeenth and Eighteenth Centuries. Smith College Studies in Modern Languages 17.2. Northampton, Mass., 1936.
- Newbury, R.D.A. "Defoe and the Swallows." Times Literary Supplement 27 Feb. 1969: 211.
- Novak, Maximillian E. "Defoe and the Machine Smashers." Notes and Queries n.s. 7 (1960): 288-290.
- Ross, John F. Swift and Defoe: A Study in Relationship. Berkeley and Los Angeles: U of California P, 1941.
- Shaw, Narelle L. "Ancients and Moderns in Defoe's Consolidator." Studies in English Literature, 1500-1900 28 (1988): 391-400.
- Snow, Malinda. "The Origins of Defoe's First-Person Narrative Technique: An Overlooked Aspect of the Rise of the Novel." Journal of Narrative Technique 6 (1976): 175-187.
- Sutherland, James R. Defoe. 2nd ed. 1950. London: Methuen, 1937; New York: Lippincott, 1938.
- Tavor, Eve. "Fictional Facts and Science in Defoe and Camus' Plague Year." Orbis Litterarum 40 (1985): 159-170.
- Vickers, Ilse. "The Influences of the New Sciences on Daniel Defoe's Habit of Mind." Man and Nature 7 (1988): 167-178.
- Wortman, Walter R., Jr. "Defoe as Satirist." Diss. U of Texas, Austin, 1973.