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# Thomas Hobbes and the Duke of Newcastle

## A Study in the Mutuality of Patronage before the Establishment of the Royal Society

*By Lisa T. Sarasohn\**

### ABSTRACT

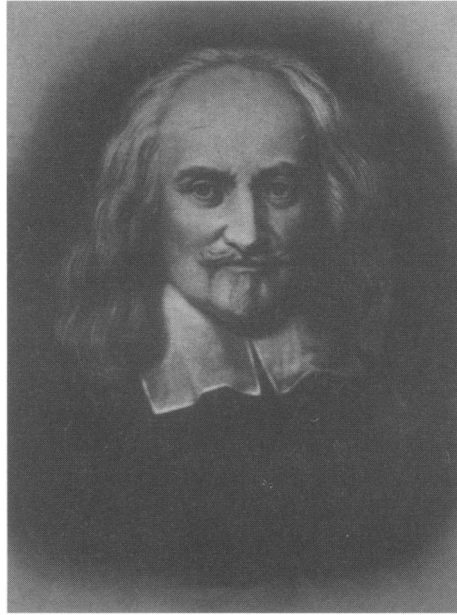
This study shows how patronage framed and fashioned the careers of Thomas Hobbes and his patron William Cavendish, the earl of Newcastle. Newcastle's protection allowed Hobbes to articulate heterodox ideas without immediate fear of reprisal. It also enabled him to solidify his status as a gentleman and the intellectual equal of both his mentor and other natural philosophers. When Hobbes offered his ideas on optics, motion, politics, and philosophy as gifts to his patron, he was reaffirming his own honor and status while acknowledging Newcastle's power. Hobbes always acted as if he was operating in the space created by a noble patron, even after this place had been transformed by the Royal Society. For Newcastle, intellectual patronage reaffirmed the status and honor he had lost during the English Civil War. Newcastle tried to establish himself as a philosopher in his own right by applying Hobbesian ideas to studies of politics, horsemanship, and swordsmanship. Thus, the rewards of patronage were mutual.

IN HIS "PROSE LIFE," Thomas Hobbes wrote of himself, "His doctrines were condemned by almost all academics and ecclesiastics, but they were praised by noblemen, and by learned men among the laity." While the professional scholars and clergy of mid-seventeenth-century England might denounce Hobbes as "a greater, and more formidable and more destructive monster to human society, then ever appeared in the world before," Hobbes's own social milieu was more open and responsive to both the man and his work.<sup>1</sup>

Hobbes spent most of his career as the client of noble patrons. In this defined social space, he could air heterodox ideas while retaining an identity as a gentleman and a philosopher. The patronage system permeating seventeenth-century society was the context

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<sup>1</sup> Thomas Hobbes, "The Prose Life: A New Translation," trans. Mary Lyon, in *The Elements of Law Natural and Politic*, ed. J. C. A. Gaskin (Oxford: Oxford Univ. Press, 1994), pp. 245–253, on pp. 249–250; and Bishop of Winchester to Cornbury, 4 July 1674, Bodleian MS Clarendon 87, fol. 198. In the interest of clarity I have modernized the spelling, capitalization, and some of the grammar in the manuscript sources I use.



**Figure 1.** Portrait of Thomas Hobbes, painted in 1654.

for both Hobbes's successes and his failures. The operation of the institution of patronage itself is displayed by the way Hobbes and his mentors, especially William Cavendish—earl (1628), marquis (1643), and then duke of Newcastle (1665)—functioned within its prescriptions.<sup>2</sup>

Hobbes's relationship with Newcastle shows how patronage operated—as a system of support that allowed thinkers a degree of independence absent in more institutionalized frameworks. For clients, patronage meant status, honor, material benefit, and legitimization. It validated the power and status of the patron as well, demonstrating his generosity and learning. The gains that both Hobbes and Newcastle realized from their relationship show how patronage created a binary tie, providing mutual benefit across social boundaries of class and fortune. (See Figure 1.)

In this essay I will show how the social organization provided by patronage offered an arena for the production and articulation of scientific and epistemological ideas that were

<sup>2</sup> There is a large literature on patronage. See, e.g., Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: Univ. Chicago Press, 1993); Biagioli, "Galileo's System of Patronage," *History of Science*, 1990, 28:1–62; Robert C. Evans, *Ben Jonson and the Poetics of Patronage* (Lewisburg, Pa.: Bucknell Univ. Press, 1989); Mordechai Feingold, *The Mathematician's Apprenticeship: Science, Universities, and Society in England, 1560–1640* (Cambridge: Cambridge Univ. Press, 1984); Werner L. Gundersheimer, "Patronage in the Renaissance: An Exploratory Approach," in *Patronage in the Renaissance*, ed. G. F. Lytle and Stephen Orgel (Princeton, N.J.: Princeton Univ. Press, 1981); F. W. Kent and Patricia Simons, "Renaissance Patronage: An Introductory Essay," in *Patronage, Art, and Society in Renaissance Italy*, ed. Kent and Simons (Canberra/Oxford: Oxford Univ. Press, 1987); Sharon Kettering, *Patrons, Brokers, and Clients in Seventeenth-Century France* (Oxford: Oxford Univ. Press, 1986); Bruce T. Moran, ed., *Patronage and Institutions: Science, Technology, and Medicine at the European Court, 1500–1750* (Rochester, N.Y.: Boydell, 1991); Linda Levy Peck, *Court Patronage and Corruption in Early Modern England* (Boston: Unwin Hyman, 1990); and Lisa T. Sarasohn, "Nicolas-Claude Fabri de Peiresc and the Patronage of the New Science in the Seventeenth Century," *Isis*, 1993, 84:70–90.

frequently novel and sometimes heretical. Patronage lent a degree of structural coherence to the complex and evolving society and culture of early modern England. Within its broad and loose parameters, patronage could reaffirm traditional ties of dependency and subservience but also allow these roles to be transformed by those fashioning new individual identities in turbulent times. Moreover, personal associations between patron and client gave both participants the opportunity to exercise their talents and interests. The tie between Hobbes and Newcastle operated to the benefit of both, allowing Hobbes to establish his status as a gentleman and the intellectual equal of great noblemen and encouraging Newcastle to develop his own theoretical notions.<sup>3</sup>

The protection of patronage gave Hobbes the resources—financial, intellectual, and social—to assault the assumptions of his times. It provided him with vital social validation, even in his dealings with other intellectual heavyweights such as René Descartes and Pierre Gassendi. Ironically, as new social and intellectual forums evolved after the Restoration, this protection ceased to be effective. Hobbes always operated as if performing before a patron; the Royal Society, on the other hand, sought to replace individual protection with collective authority, moderating and controlling the actions of its members.<sup>4</sup> For Hobbes, at least, patronage was more liberating and less constrictive than the organized scientific societies that displaced it.

The relationship between Hobbes and Newcastle highlights a transitional phase in the development of scientific identity and community. In the first half of the seventeenth century, intellectuals were supported by great and lesser patrons and achieved validation from this association. Patronage was certainly a part of court culture, as Mario Biagioli has shown, but it also defined the actions of lesser nobles and their intellectual clients, both inside and outside the court.<sup>5</sup> However, with the institutionalization of science in the various academies of Europe, most clearly described by Steven Shapin and Simon Schaffer, investigators of nature became integrated into communities that provided identity and support to individual members, thus vitiating, though not eliminating, the role of patrons. The relationship of Hobbes and Newcastle spanned this period of change and reveals how one system of social and intellectual organization gave way to another.

While Hobbes may not have recognized this transformation, his patron almost certainly did. As scientific activity became the monopoly of one organization, the duke of Newcastle's role as a patron changed. He refocused his primary patronage activities on the arts, which were not centrally organized, and limited his intellectual role to composing prefaces and poems for the treatises on natural philosophy written by his wife, Margaret Cavendish.

But Newcastle's earlier role at the center of a patronage circle, sometimes referred to as the Welbeck Academy, had provided him with the resources he needed when he wrote about politics, the art of horsemanship, and the science of swordsmanship. To Newcastle,

<sup>3</sup> The relationship between Hobbes and Newcastle has caught the attention of scholars. James R. Jacob and Timothy Raylor, "Opera and Obedience: Thomas Hobbes and *A Proposition for Advancement of Moralltie* by Sir William Davenant," *Seventeenth Century*, 1991, 6:215–225, argues persuasively that Newcastle's social ideology, as presented in "The Advice to Charles II," may have been influenced by Hobbes. Thomas P. Slaughter, *Ideology and Politics on the Eve of the Restoration: Newcastle's Advice to Charles II* (Philadelphia: American Philosophical Society, 1984), pp. xi–xxxiv, also identifies the many areas of similarity between this political treatise and Hobbes's political philosophy. Since I am considering the interaction between Hobbes and Newcastle only in scientific matters, I will merely touch on the mutuality of ideas in political and social theories.

<sup>4</sup> Steven Shapin and Simon Schaffer discuss the role of the Royal Society in controlling scientific discourse in *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton, N.J.: Princeton Univ. Press, 1985). Biagioli, *Galileo Courtier* (cit. n. 2), pp. 60–73, discusses the role of patrons in scientific disputes.

<sup>5</sup> For a case study of the way patronage functioned among the lesser nobility see Sarasohn, "Peiresc and the Patronage of the New Science" (cit. n. 2).

patronizing Hobbes was not merely an act of generosity but a symbol of his own intellectual depth and abilities.<sup>6</sup> Newcastle and Hobbes lived intertwined lives, and their relationship affected their actions and ideas. The benefits of patronage were mutual.

### THE BEGINNING OF THE PATRONAGE RELATIONSHIP BEFORE THE ENGLISH CIVIL WAR

Hobbes published most of his political and scientific writings as the client of Newcastle and Newcastle's cousin, the third earl of Devonshire. Hobbes's relationship with Devonshire was the more traditional in terms of the way patronage is commonly viewed. On leaving Oxford University in 1608, he became a member of the Devonshire household, at various times filling the roles of tutor, advisor, and elderly retainer to the second and third earls.<sup>7</sup>

Hobbes enjoyed a profitable and pleasurable association with the great family. He was allowed to use their library and given time to pursue humanistic studies, which in 1628 resulted in his translation of Thucydides. Nonetheless, Hobbes was, to some extent, a dependent of Devonshire's and, as such, a kind of servant rather than a gentleman. In a 1636 letter Hobbes declared that "I could almost engage my self to serve them [Christian, the widow of the second earl, and the third earl of Devonshire] as a domestique all my life" but noted that he would prefer to leave their service in order to get more time to study.<sup>8</sup>

Hobbes's desire to leave the family could only have increased in 1639, when he found himself embroiled in a dispute between the third earl and his mother over Devonshire's inheritance. The third earl took offense at Hobbes's suggestion that he should obey his mother and then begged for advice on the legalities of his position, which Hobbes gave. Hobbes must have worried about his part in all this, because he dictated an account of the proceedings, signed by both himself and the earl, that concluded: "And for this information the said Thomas Hobbes neyther received nor demanded, nor expected any reward, but onely the testimony of having performed the part of a faithful Tutor, and to be justified against any aspersions to the contrary."<sup>9</sup> As a "domestique" Hobbes was at risk because of his dependent position and liable to the whims of his betters.

With the earl of Newcastle, however, there was no formal tie of subserviency. This relationship was more nuanced and complex than that with Devonshire. In fact, the ambiguity implicit in the informal nature of patronage allowed Hobbes and Newcastle to construct a relationship of mutual admiration and dependency that disguised the hierar-

<sup>6</sup> On the Welbeck Academy see Robert H. Kargon, *Atomism in England from Hariot to Newton* (Oxford: Clarendon, 1966), pp. 54–75.

<sup>7</sup> Feingold, *Mathematician's Apprenticeship* (cit. n. 2), p. 22, emphasizes how university men often left Oxford and Cambridge to join the households of their patrons, who then determined what they might study and "even whether they published their results." Consequently, patronage was "perhaps the single most important external factor bearing upon the career patterns of most university-trained men of science."

<sup>8</sup> Thomas Hobbes to Newcastle, 16 Oct. 1636, in *The Manuscripts of His Grace the Duke of Portland, Preserved at Welbeck Abbey*, 8 vols. (London, 1891), Vol. 2, p. 129. This letter can also be found in Thomas Hobbes, *The Correspondence*, ed. Noel Malcolm, 2 vols. (Oxford: Oxford Univ. Press, 1994) (hereafter cited as **Hobbes, Correspondence**, ed. Malcolm), Vol. 1, pp. 37–38. For a more detailed analysis of Hobbes's relationships with the Devonshires see Lisa T. Sarasohn, "Was *Leviathan* a Patronage Artifact?" *History of Political Thought*, forthcoming.

<sup>9</sup> "A Narrative of Proceedings both Publique and Private Concerning ye Inheritance of ye Right Hon William Earle of Devonshire, from ye time of ye decease of his Grandfather, to the present," MS D6, Devonshire Collection, Chatsworth House. For a more detailed account of this dispute see Arnold A. Rogow, *Thomas Hobbes: Radical in the Service of Reaction* (New York: Norton, 1986), pp. 112–116.

chical core of their bond.<sup>10</sup> According to Steven Shapin, while the basic assumption underlying patronage was that all members of society were ranked according to status, the acknowledgment that both players existed in a common social sphere distinguished by gentlemanly conduct compensated for apparent differences in rank. Only gentlemen could enter freely into mutually obligating relationships with each other, bringing an element of implicit equality to the patronage partners. Such freedom distinguished gentlemen from members of the lower classes who lacked the necessary independence to enter into voluntary relationships. All free men, of whatever relative social status in the upper-class world, were considered to be honest, virtuous, and honorable. While the obligations of wage earners had to be specified and were usually committed to writing, the mutual obligations of gentlemen remained elastic and negotiable as the two worked out the nature of their bond. Each gave the other gifts as the symbol of their reciprocal duties.<sup>11</sup> Thus, an illusion of equivalence masked the differences in power and status. This was the kind of bond that characterized the relationship between Hobbes and Newcastle and distinguished it from the more conventional tie of dependency with Devonshire. (See Figure 2.)

The coin employed in cementing a relationship between gentlemen was honor, not money. As Hobbes explained, "the acknowledgement of power is called *honour*; and to honour a man (inwardly in the mind) is to conceive or acknowledge, that that man hath the odds or excess of power above him that containeth or compareth himself. And *honourable* are those signs for which one man acknowledgeth power or excess above his concurrent in another."<sup>12</sup>

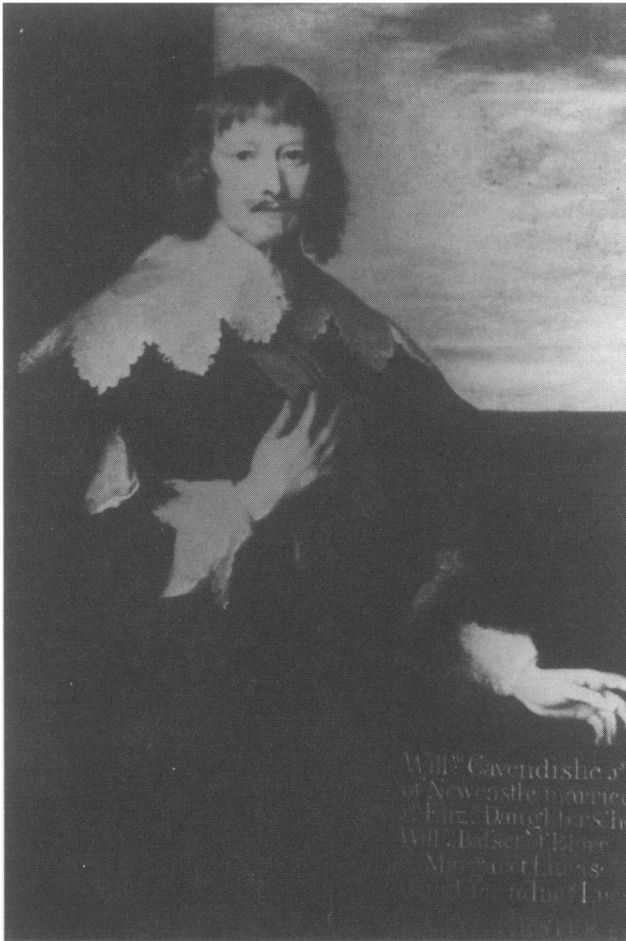
Honor is the sign of power within the social hierarchy. In a patronage relationship both parties find their power recognized as their positions are validated with expressions of honor. Frank Whigham calls this the self-referential aspect of patronage: as one submits he is also elevated by the recognition of his superior. Likewise, when one's patronage is sought, his power is acknowledged and confirmed. Thus patronage operated as a social institution, a value system, and a means of self-evaluation. It is not surprising, therefore, that Newcastle's famous wife, Margaret Cavendish, wrote, "Noble, heroic and meritorious persons, prefer honour and fame before wealth; well knowing, that as infamy is the greatest punishment of unworthiness, so fame and honour is the best reward of worth and merit."<sup>13</sup>

<sup>10</sup> The importance of the belief in order and hierarchy in early modern society has often been explored. See, e.g., Lawrence Stone, *The Crisis of the Aristocracy, 1558–1641* (Oxford: Clarendon, 1965), p. 34; Curtis Brown Watson, *Shakespeare and the Renaissance Concept of Honor* (Princeton, N.J.: Princeton Univ. Press, 1960), p. 137; and Keith Wrightson, *English Society, 1580–1680* (New Brunswick, N.J.: Rutgers Univ. Press, 1982), p. 17.

<sup>11</sup> Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: Univ. Chicago Press, 1994), pp. 45–52. The importance of gifts is discussed in Paula Findlen, "The Economy of Scientific Exchange in Early Modern Italy," in *Patronage and Institutions*, ed. Moran (cit. n. 2), pp. 5–24; her emphasis is on the role gift exchanges played in creating authority, power, obligation, and scientific community during this period.

<sup>12</sup> Thomas Hobbes, *The Elements of Law Natural and Politic*, ed. Ferdinand Tönnies (New York: Cambridge Univ. Press, 1969) (hereafter cited as **Hobbes, Elements of Law, ed. Tönnies**), pp. 34–35 (Pt. 1, Ch. 8). Hobbes also discussed the nature of the master-servant bond in *Leviathan*, where he distinguished between a relationship of servitude established by contract and monetary exchange and the relationship of friendship created by a "free gift" of honor and mutual aid, offered without compulsion: Hobbes, *Leviathan*, ed. Richard Tuck (Cambridge: Cambridge Univ. Press, 1991), pp. 62–68, 94, 142. "Friendship" is the term used to describe the patronage dyad in the seventeenth century. For a more detailed discussion of free gift and servitude see Sarasohn, "Was *Leviathan* a Patronage Artifact?" (cit. n. 8). Frank Whigham, *Ambition and Privilege: The Social Tropes of Elizabethan Courtesy Theory* (Berkeley/Los Angeles: Univ. California Press, 1984), p. 104, makes the point that honor was the currency of gentlemanly relationships.

<sup>13</sup> Whigham, *Ambition and Privilege*, pp. 130–131; and Margaret Cavendish, *The Life of the Duke of Newcastle* (1667; London: Dent, 1916), p. 177.



**Figure 2.** *Portrait of William Cavendish, earl (1628), marquis (1643), and then duke of Newcastle (1665), by Van Dyke, painted in the 1630s.*

Born 16 December 1593, grandson of the famous Bess of Hardwick, who had achieved wealth and position at the court of Elizabeth, Newcastle was well placed to attain great power and honor during the reigns of the early Stuarts. In 1638, through the patronage of Thomas Strafford, the earl of Wentworth, Newcastle gained a coveted position at court: governor of the young Prince Charles. Even though Strafford and Archbishop Laud, another connection of Newcastle's, were the chief powers in the land, the plum appointment did not fall directly into Newcastle's hands. During a long wait for news of his appointment, the earl received sympathy from a friend of very different rank. Hobbes wrote to him: "I am sorry yo<sup>r</sup> Lo<sup>p</sup> finds not so good dealing in ye world as you deserue, but my Lord, he that will venture to sea must resolve to endure all weather, but for my part I love

to keepe aland.”<sup>14</sup> These platitudes flowed easily from Hobbes’s pen, addressed to the nobleman who was already his patron and friend.

Hobbes’s relationship with Newcastle seems to date, at the latest, from 1630, when he began to explore scientific questions with Newcastle and, particularly, with Newcastle’s brother, Sir Charles Cavendish, himself an amateur mathematician. Sir Charles was the linchpin who, acting as a patron to Hobbes and others, brought together Newcastle and many of the finest mathematical and scientific minds of his age, including Walter Warner and Robert Payne. In the 1640s his circle expanded to include John Pell, William Petty, Marin Mersenne, Pierre Gassendi, Gilles Personne de Roberval, and Claude Mydorge. Newcastle’s dignity and rank required him to assume great patron status, but Sir Charles directed that patronage toward intellectual activities. Hobbes wrote that Charles, “who was distinguished by his perfect acquaintance, with every branch of mathematical science, proved a constant friend, and to the utmost of his power, a kind patron to our author.”<sup>15</sup>

Around 1630, while reading Euclid, Hobbes had his epiphany about the demonstrative nature of deductive reasoning. In that same year, he began to discuss physical and psychological questions with the Cavendish brothers. In the dedication of the “First Draught of the Optiques,” written in 1646 and addressed to Newcastle, Hobbes declared: “That w<sup>ch</sup> I have written of it is grounded especially upon that which about 16 years since I affirmed to yo<sup>r</sup> Lo<sup>p</sup> at Welbeck, that light is a fancy in the minde, caused by motion in the braine, w<sup>ch</sup> motion againe is caused by the motion of y<sup>e</sup> parts of such bodies as we call lucid.”<sup>16</sup> Newcastle, while not particularly learned himself, was fascinated with optics and ballistics—perhaps, as Richard Tuck has suggested, because of their military significance. During the 1630s, while pursuing experiments with Robert Payne, the earl corresponded with Hobbes about these subjects, and Hobbes seems to have regarded him as an equal partner in scientific speculation. In 1636 he wrote Newcastle from Paris:

In things that are not demonstrable, of which kind is the greatest part of Natural Philosophy, as depending on the motion of bodies so subtle as they are invisible, such as are ayre and spirits, the most that can be attained unto is to have such opinions, as no certain experience can confute, and from which can be deduced by lawful argumentation, no absurdity, and such are your Lordship’s opinions in your letter of the third of July which I had the honor to receive the last

<sup>14</sup> Hobbes to Newcastle, 29 July/8 Aug. 1636, in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, p. 34. On Newcastle’s appointment as governor to Prince Charles see A. S. Turberville, *A History of Welbeck Abbey and Its Owners*, Vol. 1: 1539–1755 (London: Faber & Faber, 1838), pp. 50–51.

<sup>15</sup> Thomas Hobbes, *The Moral and Political Works of Thomas of Malmesbury, Never Before Collected Together, to Which Is Prefixed, the Author’s Life, Extracted from That Said to Be Written by Himself, as Also from the Supplement to the Said Life by Dr Blackbourne, and Farther Illustrated by the Edition, with the Historical and Critical Remarks on His Writing and Opinions* (London, 1750), p. xiv. Feingold, *Mathematician’s Apprenticeship* (cit. n. 2), p. 211, identifies Sir Charles as one of those few aristocrats who “were men of science as well as patrons of science.” Feingold argues that Sir Charles’s interests in the theoretical aspects of science distinguished him from other patrons, who were more interested in the practical and delightful aspects of the new science. The distinction between those interested in theory and those interested in practice seems to be confirmed by the different roles Sir Charles and Newcastle played in the scientific community, if the boundary between theory and practice is viewed as fluid. Charles Cavendish’s role is explored in Jean Jacquot, “Sir Charles Cavendish and His Learned Friends,” *Annals of Science*, 1952, 8:13–27; and Helen Hervey, “Hobbes and Descartes in the Light of Some Unpublished Letters of the Correspondence between Sir Charles Cavendish and John Pell,” *Osiris*, 1st Ser., 1952, 10:69–90.

<sup>16</sup> Thomas Hobbes, dedication to “A Minute or First Draught of the Optiques,” in *The English Works of Thomas Hobbes of Malmesbury*, ed. William Molesworth, 8 vols. (London: Bohn, 1839–1845; rpt., Aalen: Scientia, 1962) (hereafter cited as **Hobbes, English Works**, ed. Molesworth), Vol. 7, pp. 467–469, on p. 467. This edition includes only the dedication to this work; the manuscript of the complete work is British Library MS Harley 3360. It was written in English at Newcastle’s request; see Charles Cavendish to John Pell, 1/11 Nov. 1645, British Library MS Add. 4278, fol. 223.



week, namely, That the variety of thinges is but variety of local motion in the spirits or invisible parts of bodies. And that such motion is heat.<sup>17</sup>

Apparently Newcastle shared Hobbes's ontological and epistemological viewpoints, as well as having enough confidence in his own opinions to assert them unequivocally. Their common epistemology continued throughout their lives. In 1656 Hobbes argued, "Because of natural bodies we know not the construction, but seek it from effects, there lies no demonstration of what the causes be we seek for, but only what they may be." In 1663 the nobleman concluded, "Certainly there is none can make a mathematical demonstration of natural philosophy." Both Hobbes and his patron ultimately decided that demonstrative truth could be found only in mathematics and those principles of sciences that are a product of human construction, like politics and horsemanship.<sup>18</sup>

Hobbes's relationship with Newcastle was evolving during the 1630s. As early as 1634 Newcastle had sent Hobbes in pursuit of a copy of Galileo's *Dialogue* during a visit to London, but to no avail. Hobbes found that "it is not possible to get it for mony," but being delayed in leaving London he observed that "I shall haue the more time for the businesse I haue so long owed to your Lo<sup>p</sup>, whose continuall fauors make me ashamed of my dull proceedinge, sauing that into y<sup>e</sup> number of those fauors I put yo<sup>r</sup> Lo<sup>ps</sup> patience and forbearance of me." The deferential tone of this letter suggests that Hobbes may have been acting as Newcastle's agent or servant, a role he continued to play in Paris in 1635 when he acted as Newcastle's representative in dealing with a horse seller. But in the same letter that reported this business, he also indicated that he wanted to frame his relationship with Newcastle as the association of intellectual equals. Newcastle had sent Hobbes a gift of money, to which Hobbes responded, "Let me tell yo<sup>r</sup> Lo<sup>p</sup> once for all, that though I hono<sup>r</sup> you as my Lord, yet my Loue to you is iust of y<sup>e</sup> same nature that it is to M<sup>r</sup> Payne [Newcastle's chaplain and partner in chemical experiments], bred out of priaute talke, without respect to yo<sup>r</sup> purse."<sup>19</sup> While Hobbes may be disingenuous, or even cynical, here in discounting the pecuniary bond between himself and Newcastle, this letter demonstrates how the rhetoric of patronage allowed at least the protestation of equality.

Another letter Hobbes wrote Newcastle in 1636 reveals that there was some basis for this claim of intellectual equality, as the client offered the gift of his advice to the patron. In this letter Hobbes critiqued Walter Warner's optical theories, particularly Warner's notion that he could devise a magnifying glass that could burn something a mile away. Hobbes argued that it would not be possible to demonstrate such a claim because a glass of that size could not be made. Consequently, he advised the earl to be cautious in offering support to Warner: "I hope yo<sup>r</sup> Lo<sup>p</sup> will not bestow much upon y<sup>e</sup> hopes; but suffer the liberall sciences to be liberall, and after some worthy effect, yo<sup>r</sup> Lo<sup>p</sup> then may be liberall also, as I doubt not but you will be." Hobbes's suspicion of Warner may be based on yet

<sup>17</sup> Hobbes to Newcastle, 29 July/8 Aug. 1636, in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, p. 33. For Tuck's suggestion see Hobbes, *Leviathan*, ed. Tuck (cit. n. 12), pp. 12–13.

<sup>18</sup> Thomas Hobbes, "Six Lessons to the Professors of the Mathematics," in Hobbes, *English Works*, ed. Molesworth, Vol. 7, pp. 183–356, on p. 184; Margaret Cavendish, *The Life of William Cavendish, to Which Is Added the True Relation of My Birth, Breeding, and Life*, ed. C. H. Firth (London: Nummo, 1886; 2nd ed., 1906), p. 200n; and Tom Sorell, "The Science in Hobbes's Politics," in *Perspectives on Thomas Hobbes*, ed. G. A. J. Rogers and Alan Ryan (Oxford: Clarendon, 1988), pp. 69–72.

<sup>19</sup> Hobbes to Newcastle, 26 Jan./5 Feb. 1634, 15/25 Aug. 1635, in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, pp. 19–20, 28. Noel Malcolm mentions that Newcastle and Sir Charles may have commissioned Dr. Benjamin Webb to translate the *Dialogue* (p. 20).

another concern: Warner was working on the passions and faculties of the soul, a subject Hobbes expected to be the first to clarify.<sup>20</sup>

Newcastle and Hobbes clearly were involved by this point in a mutually beneficial patronage relationship. Hobbes had enjoyed the intimate conversation of Newcastle and Sir Charles, while the earl had received the respect and advice of his client. When Hobbes was in Paris from 1634 to 1636 the brothers had provided him with an introduction to Father Marin Mersenne, the Minim monk at the center of European intellectual and scientific life. In Paris Hobbes won his first recognition as a philosopher, and the renown he gained there lasted his entire life and beyond.<sup>21</sup>

Hobbes's status was rising among his peers; but even more, his position as a gentleman was being confirmed. Certainly Hobbes could have claimed this distinction before he entered into a relationship with the Cavendish brothers. A university degree sometimes conferred gentility on its recipient, but according to Steven Shapin one became a gentleman "only *ex officio*." Such recognition was nominal at best and might be contested, particularly by those whose rank was conferred by blood. Thus, for Hobbes's status to be established he had to be able to claim that he and his benefactor, whom he continued to serve and oblige in many ways, shared an intellectual communion that transcended the material benefits he received.<sup>22</sup>

By 1636 the relationship between Hobbes and Newcastle was so close that Hobbes planned to leave the household of the earl of Devonshire to move to Welbeck. Immediately after getting off the boat from France, Hobbes wrote to Newcastle:

For though my Lady and my Lord do both accept so wel of my service as I could almost engage my selfe to serve them as a domestique all my life, yet the extreme pleasures I take in study overcomes in me all other appetites. . . . I must not deny myself the content to study in the way I have begun, and that I cannot conceive I shall do any where so well as at Welbeck, and therefore I mean, if your Lordship forbid me not, to come thither as soone as I can, and stay as long as I can without inconvenience to your Lordship.<sup>23</sup>

<sup>20</sup> Hobbes to Newcastle, 15/25 Aug. 1635, in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, pp. 28–30. Newcastle had encouraged Warner's optical studies in 1635; Newcastle's assistant, John Payne, and Sir Charles acted as intermediaries with the natural philosopher. Payne wrote to Warner on 21 June 1635 that Newcastle "would gladly be a partaker of, and a student in your philosophical discourses, if you would impart them to him. He is much taken with the device of your perspective glass" and if "it would hold good in practice as well as it seems in speculation . . . he will be ready to further you in any way you shall desire": quoted in James O. Halliwell, *A Collection of Letters Illustrative of the Progress of Science in England from the Reign of Queen Elizabeth to That of Charles the Second* (London: Taylor, 1841; rpt., London: Dawsons, 1965), pp. 65–66. The nobleman apparently took Hobbes's advice to heart. In a letter to the earl of Devonshire he remarked: "My service to Mr. Hobbes. Pray tell him Mr. Warner would make us believe miracles by a glass he can make. I doubt he will prove Ben's Doctor Subtle." Newcastle to Devonshire, 2 May 1637, in *Manuscripts of the Duke of Portland* (cit. n. 8), Vol. 2, p. 131.

<sup>21</sup> On Hobbes's reputation in France see Quentin Skinner, "Thomas Hobbes and His Disciples in France and England," *Comparative Studies in Society and History*, 1965–1966, 8:153–165; Lisa T. Sarasohn, "Motion and Morality: Pierre Gassendi, Thomas Hobbes, and the Mechanical World-View," *Journal of the History of Ideas*, 1985, 46:363–380; and Sarasohn, *Gassendi's Ethics: Freedom in a Mechanistic Universe* (Ithaca, N.Y.: Cornell Univ. Press, 1996), pp. 119–125.

<sup>22</sup> Shapin, *Social History of Truth* (cit. n. 11), p. 52. During this period Hobbes may have been encouraged by Newcastle to write a curious treatise, "Considerations Touching the Facility or Difficulty of the Motions of Horse on Streight Lines, and Circular." This document is reproduced in S. Arthur Strong, ed., *A Catalogue of Letters and Other Historical Documents Exhibited in the Library at Welbeck* (London: Murray, 1903), pp. 237–240. Scholars have traditionally credited Hobbes with its authorship, but Noel Malcolm has recently questioned this attribution, claiming instead that it was written by John Payne; see Hobbes, *Correspondence*, ed. Malcolm, Vol. 2, pp. 813–814. Whoever wrote it, it is clear that Newcastle was encouraging his scientific protégés to explore areas not usually treated by natural philosophers.

<sup>23</sup> Hobbes to Newcastle, 16 Oct. 1636, in *Manuscripts of the Duke of Portland* (cit. n. 8), Vol. 2, p. 129. This letter can also be found in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, pp. 37–38.

Clearly, Hobbes believed that it was time to exchange his role as a servant of the Devonshire family for the freedom to study living with Newcastle would provide. However, Hobbes was delayed by plague and in the end did not take up residency with Newcastle, perhaps because the nobleman was finally about to begin his tenure as the governor to Prince Charles. Instead, by 1639 Hobbes had renegotiated his position with Devonshire, ending his duties as tutor and clearly becoming more of an advisor than a hired servant.<sup>24</sup>

Both Hobbes and Newcastle experienced a rise in status at the end of the decade. Newcastle's star had clearly soared: not only did he govern the prince's household and instruct him in horsemanship, he was also appointed a member of the privy council. As his wife says, "It was a great honour and trust." At the same time, Hobbes's new agreement with the earl of Devonshire described him as "esquire." While others might doubt his claim to gentlemanly status, Hobbes must have been content with his newly fashioned identity.<sup>25</sup>

### POLITICS AND PSYCHOLOGY

But events were about to overtake both patron and client. The disagreement between the king and Parliament was coming to a head. By 1640 Newcastle was associated with a group of ultra-Royalists at court, and more moderate elements forced him to give up the governorship. Throughout the Civil War period Newcastle had as much to fear from his enemies at court as his enemies in the field. At one point a group of nobles who wanted to curtail the powers of the king asked him to join them; he replied, "The nobility cannot fall if the King be victorious, nor can they keep up their dignities, if the King be overcome."<sup>26</sup> Newcastle was first and foremost a believer in hierarchy and in the reflected glory clients enjoyed from their more illustrious patrons. In honoring the king, he honored himself.

In a "Letter of Instruction" Newcastle wrote Prince Charles before leaving his post, his views of hierarchy and honor are clear—as is his familiarity with many contemporary themes in this genre. It is an extremely practical document; Newcastle would have Charles "study things [rather] than words, matter than language. . . . Besides I would not have you too studious, for too much contemplation spoils action, and virtue consists in that." The endorsement of the active over the contemplative life is a topos that originated in modern times in the Italian Renaissance; its ties to more recent themes are also apparent. While Newcastle's letter clearly shows the influence of Machiavelli in advocating hypocrisy and irreligion as the props of power, it expresses a Baconian sensibility as well. Newcastle believed that the best teacher was experience—including the experience of the past—and so he urged Charles to study history. He also suggested that Charles study the arts—but

<sup>24</sup> Quentin Skinner, *Reason and Rhetoric in the Philosophy of Hobbes* (Cambridge: Cambridge Univ. Press, 1996), pp. 253–256, also believes that Hobbes stayed with Devonshire because he was given more leisure and no longer had to perform time-consuming duties for the earl.

<sup>25</sup> Cavendish, *Life of the Duke of Newcastle* (cit. n. 13), p. 25; and Skinner, *Reason and Rhetoric*, p. 438. Hobbes was very sensitive to the charge that he was a "rustic," which is the meaning of the name "Hob." In "Six Lessons to the Professors of the Mathematics" (cit. n. 18), p. 355, he attacked Seth Wallis for making this charge; see Shapin and Schaffer, *Leviathan and the Air-Pump* (cit. n. 4), pp. 106–107. Perhaps an identity achieved through the dynamics of the patronage system was less secure than that granted by birth. Hobbes wanted to be a gentleman but probably realized that his status was somewhat problematic. The ambiguities of patronage certainly countenanced self-delusion. I wish to thank the anonymous reviewer who pointed out this reference.

<sup>26</sup> Cavendish, *Life of the Duke of Newcastle*, p. 120.

only those that would be useful in governing, “especially those that are most proper for war and use.”<sup>27</sup>

This utilitarian ethic coincided with a similar utilitarianism in Hobbes’s *Elements of Law*, his first political work, completed in 1640 shortly after the fiasco of the Short Parliament. The *Elements* was dedicated to Newcastle, with whom Hobbes had discussed its principles of “reason and policy”: “Now (my Lord) the principles fit for such a foundation, are those which I have heretofore acquainted your Lordship withal in private discourse, and which by your command I have put into method.” These musings are not mere utopian contemplative visions, but prescriptions based on observation. Hobbes, like Newcastle, felt that action was better than mere words, and he was sure that if his doctrine was followed “it would be an incomparable benefit to the commonwealth.” Hobbes thought Newcastle the best person to act as an agent for his ideas: “The ambition therefore of this book, in seeking by your Lordship’s countenance to insinuate itself with those whom the matter it containeth most nearly concerneth, is to be excused.”<sup>28</sup>

In the symbolic universe of patronage, a book was a gift. When Hobbes gave the *Elements* to Newcastle, he honored him as his patron and brought honor to himself in emphasizing the mutuality of their relationship. Newcastle had heard Hobbes’s ideas before, in private conversation, and had apparently countenanced them and encouraged their publication. Hobbes was using Newcastle as the authority who legitimized his work and who then would serve as its prophet. Whether Newcastle recognized Hobbes as the discoverer of “the true and only foundation of such science” may be open to question, but he certainly permitted his client to use his name to legitimize his book.<sup>29</sup>

The *Elements* contains most of Hobbes’s controversial ideas in embryonic form. It presents the same picture of the state of nature and the development of civil society as do Hobbes’s later works. His doctrines of contract and obligation are outlined, as are his concepts of natural rights and laws; these, while not precisely the same as the doctrines in *Leviathan*, clearly contain the roots of his later ideas. What in this book, then, so appealed to Newcastle that he allowed his name to be associated with it?<sup>30</sup>

Both men embraced the absolute power of the sovereign, but Newcastle must have particularly appreciated Hobbes’s discussion of human passions and psychology, which was more highly developed in this work than in his other political writings and was connected to concepts of honor and hierarchy. As early as 1635, Hobbes had written to New-

<sup>27</sup> Newcastle, “The Earl of Newcastle’s Letter of Instruction to Prince Charles for His Studies, Conduct, and Behavior,” in *Original Letters, Illustrative of English History, Including Numerous Royal Letters: From Autographs in the British Museum, and One or Two Other Collections*, ed. Henry Ellis, 3 vols. (London: Harding, Triphook & Lepard, 1824), Vol. 3, pp. 288–291, on p. 288.

<sup>28</sup> Hobbes, *Elements of Law*, ed. Tonnies, pp. xv–xvi.

<sup>29</sup> *Ibid.*, p. xvi. Hobbes clearly recognized that a book was a gift. In “Six Lessons to the Professors of the Mathematics” (cit. n. 18), p. 333, while justifying the hyperbolic nature of his dedication of *De corpore*, he wrote, “When a man presenting a gift great or small to his betters, adorneth it the best he can to make it the more acceptable; he that thinks this to be ostentation and self-conceit, is little versed in the common actions of human life.”

<sup>30</sup> Not all dedications, even in Hobbes’s own works, are meant to signal the approbation of the dedicatee. See, e.g., the curious dedication of *Leviathan* to Francis Godolphin, which concluded by presuming that Godolphin might want to distance himself from the theological interpretations of the philosopher: “If . . . you find my labour generally decryd, you may be pleased to excuse your selfe, and say I am a man that love my own opinions, and think all true that I say.” Hobbes, *Leviathan*, ed. Tuck (cit. n. 12), p. 3. However, in the case of *Elements of Law* Hobbes notes that the book was the result of conversations with Newcastle, published at his urging. On the role patronage played in the writing and publication of *Leviathan* see Sarasohn, “Was *Leviathan* a Patronage Artifact?” (cit. n. 8).

castle that he hoped “to be the first” to speak sensibly about the faculties and passions of the soul.<sup>31</sup> In the *Elements* he delivered on that promise.

Hobbes based his theory of the passions on motion: pleasure increases the vital internal motion of the human being; pain hinders it. All people seek to increase their pleasure continuously. Thus, “we are not to marvel, when we see, that as men attain to more riches, honours, or other power; so their appetite continually groweth more and more.”<sup>32</sup> According to Hobbes, the social practices of his culture arose from a physiological base.

Whether Newcastle agreed with Hobbes’s materialistic psychology is impossible to determine, but he certainly appreciated an approach that seemed to be concrete rather than speculative. He could have been writing about Hobbes—and perhaps he was—when he addressed Prince Charles in the “Letter of Instruction”:

neither have I known book-worms great statesmen; some have here to for and some are now, but they study men more then books, or they would prove but silly statesmen. . . . Many philosophical works and utopias scholars have made and fancied to themselves, such worlds as never was, is, or shall be; and then I dare say they govern themselves by those rules what man should be, or not what they are, they will miss the cushion very much.<sup>33</sup>

While the physiological base of psychology is missing from the letter to the young prince—who might not have understood it—Newcastle’s practical advice echoes the message of Hobbes’s philosophy: One should do everything necessary to increase one’s power. Hobbes argued that an individual would know his own power by the actions others took in respect to himself—“the acknowledgement of power is called honour”—while Newcastle urged the prince to surround himself with the ceremonial signs of power so as to be honored and feared by both the multitude and the wise, because “authority dost what it list, I mean power thats the stronger . . . you cannot put upon you too much King.”<sup>34</sup>

Did Hobbes develop a utilitarian ethics because the practical man of the world urged him in that direction, or did the scholar expose the statesman to the possibilities of a science of politics? Were both reflecting the growing Baconian ethic of their age? (Hobbes had served briefly as Bacon’s secretary in the early 1620s.) In any event, both saw the pursuit of power as one of the determining factors of human existence—the way men are, not the way they should be.

Hobbes probably had good reason to believe that Newcastle would “like his opinions,” but he had hitched his wagon to the wrong star. Newcastle’s disagreements with members of his own party, which led to his giving up the governorship of the prince, and his support of Strafford, whom he tried to save in the First Army Plot, led to his dismissal from court. Hobbes found that aiding his friend had become impossible; as Quentin Skinner suggests, Newcastle’s association with the philosopher may have endangered him further. Shortly after the *Elements* began to circulate widely in manuscript form, probably in November 1640, Hobbes became “the first of all that fled,” fearing that his opinions endangered his

<sup>31</sup> Hobbes to Newcastle, 15/25 Aug. 1635, in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, p. 29. In the debate about the degree to which Hobbes’s politics is a part of his science, I side with Thomas Spragens, who argues that “conceptual patterns and models developed to deal with natural phenomena became prisms through which he perceived human and political phenomena”: Thomas A. Spragens, *The Politics of Motion: The World of Thomas Hobbes* (London: Croom Helm, 1973), p. 7. For the historiography of the debate see Sarasohn, *Gassendi’s Ethics* (cit. n. 21), p. 123 n 20.

<sup>32</sup> Hobbes, *Elements of Law*, ed. Tonnies, pp. 28–30.

<sup>33</sup> Newcastle, “Letter of Instruction” (cit. n. 27), p. 289.

<sup>34</sup> Hobbes, *Elements of Law*, ed. Tonnies, p. 38; and Newcastle, “Letter of Instruction,” p. 290.

freedom and even his life after Strafford fell and the power of Parliament grew.<sup>35</sup> He found refuge in Paris. Newcastle raised an army in the North of England in support of the king; but although he won several battles, his forces were defeated at the Battle of Marston Moor. By 1645 the erstwhile general found himself in Paris, where he was welcomed by the court in exile—and by Thomas Hobbes and his circle of natural philosophers.

#### EXILE IN PARIS AND THE DEBATE WITH BRAMHALL

As Newcastle lost the political and financial power he had enjoyed in England, he clung to the more symbolic signs of his status and honor. Hobbes, in fact, commended Newcastle on this course in the dedication of the *Optics*: “your lordship, after having performed so noble and honourable acts for defence of your countrie, may thinke it no dishonour in this unfortunate leasure to have employed some thoughts in the speculation of the noblest of the senses, *vision*.” Thus, both Newcastle and his brother, Sir Charles, embraced their positions as patrons of learning and, in the midst of their own troubles, championed their clients as best they could.<sup>36</sup> For Newcastle, this meant keeping an open house and an open and critical mind. In patronizing learning he reaffirmed his honor and position, even while his political fortunes were at their nadir.

From the time Newcastle settled in Paris in 1645 until he left for Antwerp in 1648, Hobbes and other philosophers gathered at his table, where, as Margaret Cavendish recounted, they discussed everything from whether men could fly to the reality of witches. Cavendish claimed that Hobbes utilized Newcastle’s ideas about witches in *Leviathan*, but it seems more likely that the philosopher was indebted to John Selden for his view of witchcraft. Newcastle’s analysis of human flight, however, is most interesting. He based his argument that humans could never fly on his observations of the way avian wings are constructed, in contrast to the physiology of human shoulders and arms. His argument was empirical and ended with a restatement of his scientific probabilism. As we have seen, Newcastle shared Hobbes’s view that observation and experiment could not reveal demonstrative truths. According to Margaret Cavendish, “Nor does he think it a crime to entertain what opinion seems most probable to him, in things indifferent; for in such cases men may discourse and argue as they please to exercise their wit, and may change and alter their opinion upon more probable ground and reasons.”<sup>37</sup>

Newcastle’s most noteworthy dinner party in Paris took place in 1647 or 1648, when

<sup>35</sup> Skinner, *Reason and Rhetoric* (cit. n. 24), p. 229; and Thomas Hobbes, “Considerations upon the Reputation of T. Hobbes,” in Hobbes, *English Works*, ed. Molesworth, Vol. 4, p. 414. See also M. M. Goldsmith, “Hobbes’s Ambiguous Politics,” *Hist. Polit. Thought*, 1990, 11:639–673, esp. p. 640; and Johann Sommerville, “Lofty Science and Local Politics,” in *The Cambridge Companion to Hobbes*, ed. Tom Sorell (Cambridge: Cambridge Univ. Press, 1996), p. 249. On Newcastle see Turberville, *History of Welbeck Abbey* (cit. n. 14), p. 107; and *Manuscripts of the Duke of Portland* (cit. n. 8), Vol. 1, pp. 701–702.

<sup>36</sup> Hobbes to Newcastle, 1646, in Hobbes, *English Works*, ed. Molesworth, Vol. 7, p. 468. Sir Charles’s role in the scientific community in the 1640s and early 1650s can be traced in his correspondence with John Pell, British Library MS Add. 4278 and 4280. Many of these letters are published in Halliwell, *Collection of Letters* (cit. n. 20), pp. 65–97. They demonstrate that he had close relations with Hobbes, Descartes, Gassendi, Mersenne, and Roberval. See also Jacquot, “Sir Charles Cavendish and His Learned Friends” (cit. n. 15); and Hervey, “Hobbes and Descartes” (cit. n. 15). Also during this period, Newcastle favored the physician and alchemist William Davisson, who dedicated “A Short Treatise of the Nature of Minerals” to him in 1645, apparently in response to questions raised by the Englishman. The manuscript copy of this treatise is followed by a collection of recipes for medicines in Newcastle’s hand, which testify to the fact that he was interested in all areas of natural philosophy; see British Library Harley MS 6491.

<sup>37</sup> Cavendish, *Life of the Duke of Newcastle* (cit. n. 13), pp. 135, 136 (quotation); and Rogow, *Thomas Hobbes* (cit. n. 9), p. 108.

he brought together Descartes, Hobbes, and Pierre Gassendi, the French priest who was rehabilitating ancient Epicurean atomism. By this time Hobbes and Gassendi were firm friends, but both disliked Descartes, with whom they disagreed on issues of philosophical substance and priority. Both wrote objections to the *Meditations*, to which Descartes responded with sarcasm and anger.<sup>38</sup> Somehow Newcastle prevailed on these founders of the mechanical philosophy to put their differences aside and to leave his house at least publicly reconciled. A patron's influence could, thus, work to smooth and facilitate scientific discourse.

Hobbes had attempted to secure his patron's favor on his own behalf before this dinner. As we have seen, Hobbes declared in the dedication to the 1646 "First Draught of the Optiques" that he had been the first to develop a doctrine of light and perception: "that light is a fancy in the minde, caused by motion in the braine." He had expounded this doctrine for Newcastle and Sir Charles in 1630; now, "by putting you in mind hereof, I doe indeed call you to witnesse of it: because, the same doctrine having since been published by another, I might bee challenged for building on another man's ground." It was Descartes who had claimed priority in this matter, and the dispute between the two philosophers was as significant as Hobbes's critique of the *Meditations* in causing the animosity between them. Hobbes was trumping Descartes not only with the facts, but also with the prestige of his witnesses. Like many before him, Hobbes sought to substantiate controversial claims by invoking the imprimatur of an authority whose influence came not from his expertise but from his power. This was a conservative strategy that would become increasingly obsolete, in scientific work at least, as ideas of community and authority evolved in the later part of the century.<sup>39</sup>

But the implications of an ontology of matter and motion went beyond questions of optics. There were profound moral and theological implications as well. Sometime in 1645, in Newcastle's presence and under his protection, Hobbes and the bishop of Derry, John Bramhall (1594–1663), engaged in a discussion of free will and determinism that eventually found its way into print, leading to a bitter dispute between the philosopher and the theologian. Hobbes had recast his oral objections into a letter to Newcastle, which the nobleman had promised not to publish but which was printed without the knowledge of either patron or client in 1654. Bramhall issued an outraged response, to which Hobbes replied in 1656 with a restatement of his position in *The Questions Concerning Liberty, Necessity, and Chance*.<sup>40</sup>

<sup>38</sup> The exact date of this dinner has been debated, as have details of the event. Some scholars have argued that Gassendi was indisposed that evening and met with Descartes after dinner. It has also been suggested that another debate, on the nature of hardness, occurred between Hobbes and Descartes at the dinner. Whatever the facts of the case, it appears incontrovertible that Newcastle brought the three together. See Hervey, "Hobbes and Descartes" (cit. n. 15), pp. 69–71; and Gaston Sortais, *Le philosophie moderne depuis Bacon jusqu' Leibniz*, 2 vols. (Paris: Lethielleux, 1920–1922), Vol. 2, p. 15. On the nature of the disagreements about the *Meditations* see Sarasohn, *Gassendi's Ethics* (cit. n. 21), pp. 89–90, 120–128.

<sup>39</sup> Hobbes, dedication to "First Draught of the Optiques" (cit. n. 16), p. 468; and John Laird, *Hobbes* (London: Benn, 1934), pp. 48–52. Hobbes had already claimed priority in Hobbes to Marin Mersenne, 30 May 1641, which also referred to his 1630 conversation with the Cavendish brothers; see Jacquot, "Sir Charles Cavendish and His Learned Friends" (cit. n. 15), pp. 20–21. On the wider themes of power and authority see Shapin and Schaffer, *Leviathan and the Air-Pump* (cit. n. 4), pp. 332–344.

<sup>40</sup> The letter is Thomas Hobbes, "Of Liberties and Necessitie: A Treatise Wherein All Controversie Concerning Predestination, Election, Free-will, Grace, Merits, Reprobation, &c. Is Fully Decided and Cleared, in Answer to a Treatise Written by the Bishop of Londonderry on the Same Subject," in Hobbes, *English Works*, ed. Molesworth, Vol. 4, pp. 229–278; for the book see Hobbes, *The Questions Concerning Liberty, Necessity, and Chance, Clearly Stated and Debated between Dr. Bramhall, Bishop of Derry, and Thomas Hobbes of Malmesbury*, *ibid.*, Vol. 5, pp. 1–455. According to George Croom Robertson, *Hobbes* (London: Blackwood, 1910; rpt., St. Clair

According to Hobbes, however, Bramhall's outrage came after the event. The actual dispute before Newcastle was "without any offensive words, as blasphemous, atheistical, or the like," because "the Bishop was not then in passion, or suppressed his passion, being then in the presence of my Lord of Newcastle." Newcastle's presence defused any passion on the subject: he acted as both the instigator and the moderator of the debate, even determining that Hobbes and Bramhall would discuss the nature of free will and determinism rather than the bishop's objections to Hobbes's political treatise, *De cive*, which had appeared in 1642. Hobbes wrote down his argument only because "the many obligations wherein I was obliged to [Newcastle], prevailed with me to write this answer," even though, he knew, "there were some reasons for which I thought it might be inconvenient to let my answer go abroad."<sup>41</sup> Hobbes was acting as an obliging client in serving his patron's interests, though he was aware of the risks of voicing heterodoxical opinions.

It is not difficult to understand Newcastle's interest in such an abstruse and complex subject, which was debated in the most sophisticated scholastic terminology of the period. The topic of free will and determinism was widely discussed in the philosophical and theological circles of the sixteenth and seventeenth centuries, including the circle around Mersenne, so perhaps Newcastle had already been exposed to the intricacies of the debate. As a practical man, he certainly knew that conflict in theology was one of the causes of the present political debacle in England. In the letter written after the debate Hobbes indeed tried to tap into Newcastle's pragmatic approach to philosophical questions: "And first your Lordship's own experience furnishes you with proof enough, that horses, dogs, and other brute beasts, do demur oftentimes upon the way they are to take, the horse retiring from some strange figure that he sees, and coming on again to avoid the spur." So, Hobbes concluded, the actions of both horses and men are determined by consideration of the greater good and the lesser evil.<sup>42</sup> As we shall see, in a later treatise on horsemanship Newcastle would argue for the rationality of horses as a principle of his equestrian science. Hobbes knew his audience. (See Figure 3.)

It was only Newcastle's urging that induced Hobbes to put into written form what the philosopher realized was an explosive doctrine: that all human beings are determined in their actions by necessitating factors, and in fact "all action is the effect of motion." Hobbes did not hesitate to draw what he considered the evident consequence of his ontology of motion: that the human understanding is determined by the last antecedent motion that strikes it, which in turn determines the will.<sup>43</sup> This kind of causal and materialistic determinism challenged the doctrines of free will and determinism of both the Catholic and Protestant camps. Hobbes could articulate it only because he operated in a defined and protected space created by Newcastle. In this space the debate could commence and continue in a structured forum that invited free discourse unconstricted as to content.

Hobbes hoped that this space would remain private, rather than being opened to public view: "If his Lordship had not desired this answer, I should not have written it, nor do I write it but in hopes your Lordship and his will keep it private." It was possible for Hobbes

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Shores, Mich.: Scholarly Press, 1970), pp. 164–165, "Hobbes allowed a Frenchman in his acquaintance, interested in the subject, to have a private translation of the reply made by a young Englishman who secretly took a copy for himself." The unidentified Englishman was responsible for the letter's publication.

<sup>41</sup> Hobbes, *Questions Concerning Liberty, Necessity, and Chance*, p. 2. Newcastle's role is described in Hobbes, "Of Liberties and Necessitie," p. 239.

<sup>42</sup> Hobbes, "Of Liberties and Necessitie," p. 244. On interest in free will and determinism see Sarasohn, *Gassendi's Ethics* (cit. n. 21), pp. 76–97.

<sup>43</sup> Hobbes, *Questions Concerning Liberty, Necessity, and Chance* (cit. n. 40), pp. 305, 323–324.





**Figure 3.** *William Cavendish with horse and dog in front of Welbeck Abbey.*

to take risks because he knew that he was performing for an audience of one who was privileged—in every sense of the word—to hear the truth: “and now the question is not, what is fit to be preached, but what is true.”<sup>44</sup>

Mario Biagioli has argued that scientific disputes were analogous to, or even the intellectual counterpart of, duels. The patron, by engaging the combatants in an adversarial exchange, confirmed both his own honor and that of his clients: “Patrons and brokers wanted their clients to engage in disputes and expected them to respond ‘heroically,’ that is, fearlessly and skillfully, because in doing so, the clients would increase their (and their brokers’ and patrons’) honor and status.”<sup>45</sup> Simply to be challenged was a confirmation of status, and to reply was a manifestation of honor. Control of the space in which the dispute took place confirmed the patron’s identity and status. Clearly Newcastle and Hobbes were operating within these social parameters in the debate with Bramhall, which itself may explain Newcastle’s interest in a difficult subject. Although this particular battle was not meant to be fought in a public arena, even a private skirmish lent glory to the patron.

Hobbes not only implicitly recognized the terms of his engagement; he explicitly acknowledged that his dispute with Bramhall was a kind of duel or battle. Bramhall used military allegories in his rhetoric: his forces were divided into two squadrons drawn from

<sup>44</sup> Hobbes, “Of Liberties and Necessitie” (cit. n. 40), pp. 256–257, 252.

<sup>45</sup> Biagioli, *Galileo Courtier* (cit. n. 2), p. 70.

Scripture and reason—"which allegory," Hobbes noted, "he useth, I suppose, because he addresseth the discourse to your Lordship who is a military man." But Hobbes met Bramhall's forces "and, thus must answer to his Lordship's discourse, wherein I think not only his squadrons of arguments, and also his reserves of distinctions are defeated." Indeed, Hobbes called on another topos of discourse to explain his strategy: "And now your Lordship will have my doctrine concerning the same questions, with my reasons for it, positively, as briefly as I can, without any terms or art, in plain English." Hobbes shifted from the language of battle to the language of rhetoric, an arena in which he was undoubtedly more comfortable.<sup>46</sup>

Newcastle continued to favor Hobbes for the length of his stay in Paris, which ended in 1648. Several scholars credit Newcastle with obtaining Hobbes's appointment in 1646 as mathematical tutor to Prince Charles. Sir Charles, however, wrote to John Pell that "Mr. Hobbes's journey to Montauban was stayed, being implored to read mathematics to our prince. My Lord Jermyn did, I believe, do him that favour and honour; for his friends here, I am confident, had no hand in it." Still, Jermyn was connected to Newcastle through William Davenant, the poet who had served as Newcastle's lieutenant general of ordnance during the Civil War and was now Jermyn's secretary.<sup>47</sup> Hobbes's appointment, therefore, may have reflected Newcastle's general promotion of his client's interests.

Hobbes was now enmeshed in the politics of the court in exile. This position prompted him to turn aside from his studies in natural philosophy in order to devote himself to civil philosophy and the eventual composition of *Leviathan*. But he knew, as he had indicated in "Of Liberties and Necessities," that the common run of mortals were not interested in the truth; in leaving the private and protected space provided by Newcastle, Hobbes put himself at risk in the more public arena of the court. Even though Queen Henrietta Maria favored many of Hobbes's prestigious friends, she had concerns about the heterodox philosopher instructing her son. Hobbes wrote to his friend Samuel Sorbière, "For his [the prince's] own age does not yet allow, and the judgment of those by whose counsels it is right he should be ruled will always prevent, his being imbued with the political precepts, which are contained in the book that is being printed [*De cive*]."<sup>48</sup>

Hobbes's duties as teacher to the prince were short lived, as was Newcastle's renewed influence at court. In 1648 Charles embarked on a series of military campaigns against the Parliamentary forces. Newcastle borrowed 106 pistoles from Hobbes to help pay off his creditors so he could leave Paris to join the prince on his first campaign; he gave Hobbes his telescopes and microscopes as surety for the loan. This interaction is an interesting twist on the traditional understanding of patronage: apparently the pecuniary bond could go both ways. Hobbes should have saved his money, and Newcastle his time; the campaign

<sup>46</sup> Hobbes, "Of Liberties and Necessities" (cit. n. 40), pp. 241, 271. On Hobbes and rhetoric see David Johnston, *The Rhetoric of "Leviathan": Thomas Hobbes and the Politics of Cultural Transformation* (Princeton, N.J.: Princeton Univ. Press, 1986); and Skinner, *Reason and Rhetoric* (cit. n. 24).

<sup>47</sup> Charles Cavendish to Pell, 7 Dec. 1646 (N.S.), British Library MS Add. 4278, fol. 265, rpt. in Robert Vaughan, ed., *The Protectorate of Oliver Cromwell and the State of Europe during the Early Part of the Reign of Louis XIV*, 2 vols. (London: Colburn, 1839), Vol. 1, pp. 374–375. That Newcastle engineered Hobbes's appointment is suggested, e.g., by Noel Malcolm in Hobbes, *Correspondence*, ed. Malcolm, Vol. 2, p. 814. For Davenant's place in Newcastle's intellectual circle and the poet's relationship with Hobbes see Jacob and Raylor, "Opera and Obedience" (cit. n. 3), pp. 215–233.

<sup>48</sup> Hobbes to Samuel Sorbière, 4 Oct. 1646, in Hobbes, *De cive: The Latin Version*, ed. Howard Warrender (Oxford: Clarendon, 1983), p. 305. See Laird, *Hobbes* (cit. n. 39), p. 14, on the reaction to Hobbes's presence at court.

was a dismal failure, and the nobleman removed to Antwerp, away from the politics of the court, where he might economize and devote himself to his horses.<sup>49</sup>

### EQUESTRIAN SCIENCE AND THE SCIENCE OF SWORDSMANSHIP

In his exile and afterward, Newcastle's thought about horses and his equestrian theories were informed and fashioned by the scientific and philosophical milieu in which he traveled. He wrote two books on horsemanship that share a title but differ in content: *La méthode et invention nouvelle de dresser les chevaux* (1658) and *A New Method and Extraordinary Invention to Dress Horses, and Work Them According to Nature; as Also to Perfect Nature by the Subtlety of Art; Which Was Never Found Out But by the Thrice Noble, High, and Puissant Prince, William Cavendish, Duke of Newcastle* (1667). The full title of the English work reflects the influence of the new science on Newcastle. Like so many of his time, he embraced progress and "newness" as positive goods. He believed that he was the first to find "the perfect and only truth of horsemanship," a phrase that recalls Hobbes's description of his own science of politics in the dedication of the *Elements of Law* to Newcastle: "the true and only foundation of such science." Newcastle and Hobbes were eager to claim priority in their respective fields. Newcastle exclaimed, "But my book is stolen out of no book, nor any mans practice but my own, and is as true as it is new; and if any man do not like it, it is a great signe he understands it not: for there is no way of dressing horses like it; if it be not good, I am sure it is the best that hath been writ yet." (See Figure 4.) A similar authorial arrogance colored Hobbes's description of his *Elements of Philosophy* (1656): "A little book, but full; and great enough, if men count well for great; and to an attentive reader versed in the demonstrations of mathematicians, that is, to your Lordship [the Earl of Devonshire], clear and easy to understand, and almost new throughout, without any offensive novelty."<sup>50</sup>

While the subjects of Hobbes's and Newcastle's works may have differed, their styles did not. Each man thought himself the discoverer of his respective art or science, and each suggested that any failure to understand his principles was the fault of the reader, not the author or his ideas. Both authors felt that they had found a new method for discovering the truth, and to some extent—like Hobbes, but much less systematically—Newcastle followed a deductive methodology in his discussion: he defined the different aspects of horses and horsemanship and built general axioms and principles on these definitions. The definitions were based on his observations and his experiences with horses. As early as the *Elements of Law*, Hobbes had described such a method to Newcastle, and apparently the nobleman had taken note.<sup>51</sup> Thus, even an equestrian treatise could share the vocabulary and approach of a scientific work.

There are even some thematic similarities in the works of patron and client. For New-

<sup>49</sup> Concerning the loan see University of Nottingham Library MS PW1 406 (MS Cavendish Misc. 43); and Noel Malcolm, "Introduction," in Hobbes, *Correspondence*, ed. Malcolm, Vol. 1, pp. liv–lv. Newcastle had collected seven telescopes while he was in Paris; see Charles Cavendish to Pell, 4/14 Feb. 1647, British Library MS Birch 278, no. 271. On the failed campaign and the removal to Antwerp see Cavendish, *Life of the Duke of Newcastle* (cit. n. 13), pp. 68–73.

<sup>50</sup> Newcastle, *A New Method and Extraordinary Invention to Dress Horses* (London: Milbourn, 1667), dedication, n.p. ("perfect and only truth"), p. 4 ("stolen out of no book"); Hobbes, *Elements of Law*, ed. Tonnies, Pt. 5, Ch. 14; and Thomas Hobbes, *Elements of Philosophy, the First Section, Concerning Body: Written in Latin by Thomas Hobbes of Malmesbury, and Now Translated into English* (London: Leybourn, 1656), in Hobbes, *English Works*, ed. Molesworth, Vol. 1, pp. vii–532, on p. vii.

<sup>51</sup> Hobbes, *Elements of Law*, ed. Tonnies, Pt. 4, Ch. 13.



**Figure 4.** “Newcastle, c’est la force de ton génie/Qui te fait triompher de la Cavalerie.” Illustration from *La méthode et invention nouvelle de dresser les chevaux* (1658).

castle, horses possessed nearly rational faculties: “And remember, that I work upon the understanding of a horse, more than the labour of his body; for I assure you, he hath imagination, memory, and judgement; Let the learned say what they please: I work upon those faculties; and that is the cause my horses go so well.” Undoubtedly the “learned” philosopher Newcastle had in mind here was Descartes, who believed that animals were automatons, without reason. Hobbes, who was no friend of Descartes, also embraced animal rationality, specifically addressing his remarks on the subject to Newcastle: “And first your Lordship’s own experience furnishes you with proof enough, that horses, dogs, and other brute beasts, do demur on the way they are to take.” They deliberate on what will be a good and what an evil, just as men do. Likewise, Hobbes and Newcastle agreed that fear was the best way to ensure obedience. For Newcastle, a horse’s fear was the outcome of judicious use of the spur; for Hobbes, of course, human action was predicated on the fear of death, but he would have agreed with Newcastle’s conclusion: “nor doth any horse love subjection, nor any creature, until there is no remedy, and then they obey.”<sup>52</sup>

Newcastle believed that horses—and men—could be trained through habit: “Horses doth nothing but by custom and habit, with often repetitions to fortify their memories, and by good lessons, and methodical, and so do all men in all things that they do, good or bad.” As James Jacob and Timothy Raylor have pointed out, Newcastle may be reflecting

<sup>52</sup> Newcastle, *New Method* (cit. n. 50), pp. 218–219 (nearly rational faculties), 182 (“no remedy”); and Hobbes, “Of Libertie and Necessitie” (cit. n. 40), p. 244.

Descartes's theory of the passions, about which the French philosopher had written to him in 1646.<sup>53</sup> He may also be incorporating Hobbesian psychology, with its emphasis on the physiological aspects of pleasure and pain. While both Hobbes and Newcastle believed that animals possessed rationality, they agreed that such rationality did not preclude the causal determination of actions by custom and habit.

Jacob and Raylor suggest, moreover, that theories of social management and manipulation articulated by the poet William Davenant might have reflected "ideas about obedience-training which had circulated in the Cavendish circle." Ideas about the manipulation of stimuli to produce desired effects had moral implications that could be advanced only because of Hobbes's new concepts of morality: "Right and wrong, virtue and vice, having been cut loose from their traditional moral and theological moorings, were now available for the sovereign's, and Davenant's shaping."<sup>54</sup> Clearly, what we see here is a pattern of mutuality and reciprocity of ideas, providing a vocabulary to discuss the behavior of both beasts and human beings.

Newcastle had learned from Hobbes and the other natural philosophers he patronized. At those moments of his life when he was most excluded from the court, both in exile and during the Restoration, he reclaimed his honor by utilizing the style and strategies of his intellectual mentors.

Another treatise Newcastle wrote further testifies to the mutuality of his relationships with Hobbes and others. In "The Booke of the Sorde," also written during his exile in Antwerp, Newcastle attempted to apply mathematics to swordsmanship; he wanted to rationalize the science that was "the highest and fittest profession for a gentleman." He told his readers about his method: "that you shall see perfectly proved, that is mathematically—but first [you] will say must one fight mathematically. I say yes, that to fight with reason is likelier to win victory . . . than to fight by chance without reason."<sup>55</sup>

Newcastle's object in this treatise was to use mathematics both as a method of argumentation, which would lead to demonstrative rather than probable knowledge, and as the basis for movement in actual swordplay. For example, a swordsman has to learn when during fighting to move obliquely and when to move in an "absolute circle."<sup>56</sup> Motion becomes the means for constructing a duel, just as for Hobbes motion is the means of constructing a universe: the microcosm imitates the macrocosm. Hobbes's mechanical universe composed of matter in motion is transposed into a manual for the fighting man.

Newcastle felt in a privileged position to develop this science because he knew both the theory and the practice of swordsmanship. He was a man of experience, unlike moral philosophers and historians who "most, if not all, are far from that little knowledge [of] the world for all their reading." In this science, Newcastle could claim superiority to the intellectuals he patronized: thus he established his role as a philosopher by showing that he was more competent at the practice of science than any of them. He had found the very principles of this science, which "hath been like the philosopher's stone, many pretending to have it, but all failed yet—but here you shall have the elixir of weapons, of wounding your enemy, with safety to yourself."<sup>57</sup> Thus Newcastle fashioned an identity for himself that was impervious to the winds of political fortune; patronage had given him the means

<sup>53</sup> Newcastle, *New Method*, p. 200; and Jacob and Raylor, "Opera and Obedience" (cit. n. 3), p. 219.

<sup>54</sup> Jacob and Raylor, "Opera and Obedience," p. 225. Hobbes was a good friend of Davenant's. Their relationship is described in Skinner, *Reason and Rhetoric* (cit. n. 24), pp. 332–333.

<sup>55</sup> Newcastle, "The Booke of the Sorde," British Library Harley MS 4206, fols. 2–3, 8–9.

<sup>56</sup> *Ibid.*, fol. 18.

<sup>57</sup> *Ibid.*, fols. 2–3, 6–7.

to redefine his role, just as it had given Hobbes the means to fashion his own philosophical and social identity.

### THE RESTORATION AND THE END OF PATRONAGE

But political fortunes changed again; and so Newcastle returned to England with the Restoration of Charles II and regained his lost estates, if not his lost power. After his return, his role as a patron of science lessened. It may be that he no longer had the time or inclination to create an identity separate from that of being a noble lord; he was fully engaged in trying to restore his estates. Consequently, his relationship with Hobbes diminished, although shortly before his return to England he sent Charles II a "Letter of Advice" that, like his work on horsemanship, contained several Hobbesian themes.<sup>58</sup>

It is probable that with the death of Sir Charles, in 1654, the scientific world lost some of its appeal. Newcastle's interests turned increasingly to drama and poetry. Besides horsemanship and swordsmanship, Margaret Cavendish wrote, "the rest of his time he spends in musick, poetry, architecture and the like." The playwrights he patronized included Thomas Shadwell, Richard Flecknoe, and John Dryden.<sup>59</sup> Nevertheless, some connection with science persisted because of his wife. Newcastle wrote poems and prefaces to her scientific works, defending her right to publish her audacious ideas on the grounds that her philosophy was better than any written before.<sup>60</sup> But except for this conjugal support, Newcastle's role as a patron of science had come to an end.

A possible explanation for Newcastle's lack of active participation in the scientific world is the fact that the parameters of intellectual patronage had changed in the years since the Restoration. The Royal Society had been created in 1660, and, as Steven Shapin and Simon Schaffer have shown, a new etiquette of scientific discourse and public patronage of science had emerged. The amateur and professional members of the Royal Society, led by Robert Boyle, adopted a gentlemanly moderation in their discussions and promoted consensus rather than debate, at least when they presented their findings to the general public.<sup>61</sup> There was little room for great autonomous patrons to operate in this new social space. Hobbes had formulated his natural philosophy, optics, politics, and ethics under the protection of

<sup>58</sup> The proximity of Welbeck and Chatsworth, the homes of Newcastle and Devonshire, made it possible for some kind of relationship between Newcastle and Hobbes to continue. An undated letter (MS D7, Devonshire Collection, Chatsworth House), which must have been written after 1665, when Newcastle was created a duke, testifies that Devonshire used Hobbes as an intermediary with Newcastle in dealing with shire politics.

<sup>59</sup> Cavendish, *Life of the Duke of Newcastle* (cit. n. 13), p. 142. On Newcastle's patronage activities after he returned to England see Geoffrey Trease, *Portrait of a Cavalier: William Cavendish, First Duke of Newcastle* (London: Macmillan, 1979), pp. 189–191.

<sup>60</sup> Newcastle, "To the Lady Marchioness of Newcastle, on Her Book of Philosophy," in Margaret Cavendish, *Philosophical and Physical Opinions* (London: Wilson, 1663), n.p. To a certain extent, in encouraging his wife's scientific speculations Newcastle continued his patronage of science, although she was so marginalized by the scientific establishment that both patron and client remained outside the parameters of intellectual discourse and community. Cavendish herself tried to use patronage protocols to gain recognition as a legitimate thinker. See Lisa T. Sarasohn, "Margaret Cavendish and Patronage," *Endeavour*, 1999, 23:130–132. I wish to thank the anonymous reviewer of this piece for suggesting the patronage dynamic between Newcastle and Cavendish. On Margaret Cavendish's natural philosophy see Sarasohn, "A Science Turned Upside Down: Feminism and the Natural Philosophy of Margaret Cavendish, Duchess of Newcastle," *Huntington Library Quarterly*, 1984, 47:289–307.

<sup>61</sup> Shapin and Schaffer, *Leviathan and the Air-Pump* (cit. n. 4), pp. 22–79, 131–139. See also Shapin, *Social History of Truth* (cit. n. 11), pp. 3–41. Biagioli also comments on the way scientific discourse changed with the establishment of the Royal Society, where the political climate made intellectual duels "inimical": Mario Biagioli, "Scientific Revolution, Social Bricolage, and Etiquette," in *The Scientific Revolution in National Context*, ed. Roy Porter and Mikuláš Teich (Cambridge: Cambridge Univ. Press, 1992), pp. 11–54, on pp. 34–35.

the earl of Newcastle, who legitimized the philosopher's ideas and methods while adapting them to his own interests in horsemanship and swordsmanship. Both had received confirmation of status and honor in their relationship; but after the Restoration this was no longer the established route to general approbation.

For the scientists of this new age, honor was not primarily to be gained through association with a great man; it was, instead, to be the reward of the validation of one's ideas by a council of peers. The times had changed, and perhaps Newcastle recognized that. He never became a member of the Royal Society, although his cousin the earl of Devonshire did. Hobbes never recognized the authority of the society; he continued to duel with his adversaries in order to vindicate his honor, and he continued to seek legitimacy for his works by appealing to great patrons, including Charles II.<sup>62</sup> There is some degree of truth in Quentin Skinner's assertion that Hobbes was kept out of the Royal Society because he was perceived to be a "club bore." His boorishness was not a matter of personal behavior but a discursive strategy. Hobbes had grown to maturity in a social sphere where the drama of challenge and response, performed in the presence of a great patron, was the way to scientific legitimization. There is a note of poignancy in his dedication of "Seven Philosophical Problems" (1662) to the king, "whose approbation, if I have the good fortune to obtain it, will protect my reasoning from the contempt of my adversaries."<sup>63</sup>

In a sense, the changing parameters of patronage meant that Hobbes had lost his intellectual freedom. When he was protected by the great, he could and did write almost anything he chose. Certainly their continued protection provided the physical security he needed in the face of his enemies. But under the new system they could no longer serve as witnesses to the truth of his ideas—or at least as witnesses whose warrant would provide the honor and respect he wanted from his fellow thinkers. The irony of the institutionalization of science and thought is that it replaced a heterogeneous intellectual milieu with a more controlled forum.

Indeed, Newcastle seemed to recognize that the censorial climate of post-Restoration England limited and controlled discourse. In defending his wife's works, he wrote:

You, Various Readers, various Judgments give;  
and think, Books are condemn'd, or ought to live  
According to your Censures, bad or good,  
Before you read them or they're understood. . . .  
If you be Scholars, she's too of the Gown;  
Therefore be civil to her: think it fit  
She should not be condemn'd 'cause she's a Wit.<sup>64</sup>

Newcastle knew that his wife's speculations were dismissed by the learned because "she does strive / T'intrench too much on the male prerogative," but he framed his response

<sup>62</sup> Noel Malcolm, "Hobbes and the Royal Society," in *Perspectives on Hobbes*, ed. G. A. J. Rogers (Oxford: Clarendon, 1988), pp. 43–66, on pp. 51, 51n, mentions that many of Hobbes's friends were members of the Royal Society, among them William Petty, John Pell, Kenelm Digby, and John Evelyn. Hobbes's battle with Robert Boyle over the air-pump has been chronicled in Shapin and Schaffer, *Leviathan and the Air-Pump*. Hobbes also entered into ferocious combat with Seth Ward and John Wallis over the possibility of squaring the circle.

<sup>63</sup> Quentin Skinner, "Thomas Hobbes and the Nature of the Early Royal Society," *Historical Journal*, 1969, 12:217–239, on p. 238; and Thomas Hobbes, "Seven Philosophical Problems and Two Propositions of Geometry: With an Apology for Himself and His Writings Dedicated to the King in the Year 1662," in Hobbes, *English Works*, ed. Molesworth, Vol. 7, pp. 3–68, on p. 4.

<sup>64</sup> Newcastle, "The Duke of Newcastle upon All the Works of His Duchess," in Margaret Cavendish, *Natures Picture Drawn by Fancies Pencil to the Life* (London: Maxwell, 1671), sigs. A2r, A2v.

within a general attack on the privilege scholars claimed to rule on the acceptability of heterodox ideas.<sup>65</sup> He undoubtedly preferred that credibility be bestowed by patrons such as himself, rather than coming from a community of scholars.

Indeed, when the founders of the Royal Society decided, in Michael Hunter's words, to limit their dependence on "the purely personal and hence potentially capricious [and turn] towards more public and formal structures and procedures," they may have discouraged the patronage support they in fact still endeavored to elicit. In the early years of the society few noble patrons endowed this new public institution with material or other kinds of benefits.<sup>66</sup> They may merely have been nonplussed by the idea of supporting a collective rather than an individual client; but they may also have sensed that the new consensual model of scientific legitimization undermined the benefits to be won through their own participation. Such a forum, which precluded the individual glory of the client, perforce also limited the honor gained by the patron.

Both Newcastle and Hobbes probably found this new social space alien, and so Newcastle emphasized his patronage of the arts until his death in 1676 and Hobbes looked elsewhere for support, living as an honored retainer of the earl of Devonshire until he died in 1679.<sup>67</sup> Their relationship as patron and client had worked to their mutual benefit, but under the new conditions they had little to offer each other. The end of mutual service meant the end of the patronage tie.

<sup>65</sup> It is unlikely that Hobbes's increasing reputation for heterodoxy and atheism disrupted the relationship between him and Newcastle, though Malcolm, "Hobbes and the Royal Society" (cit. n. 62), pp. 53–66, argues that it may have been the reason for his exclusion from the Royal Society. His enemies, Seth Ward and John Wilkins, may have wanted to disassociate themselves from a thinker whose religious views came too uncomfortably close to their own and thus had the possibility of undermining their own reputations.

<sup>66</sup> Michael Hunter, *Establishing the New Science: The Experience of the Early Royal Society* (Woodbridge: Boydell, 1989), pp. 7, 30–35. In 1667 the Royal Society solicited a contribution from Margaret Cavendish for the building of a private college; not surprisingly, the duchess declined (pp. 167–171).

<sup>67</sup> On Newcastle's later patronage, particularly of literary activity, see Trease, *Portrait of a Cavalier* (cit. n. 59), pp. 189–193.