



VOLUME EDITOR'S INTRODUCTION

THE OTHER VOICE

While the correspondence between Princess Elisabeth of Bohemia (1618–80) and René Descartes covers topics spanning the range of philosophical inquiry, still it was not written for the public. Early on in the correspondence, Elisabeth is quite insistent that their exchanges be kept private. In concluding her letter of 6 May 1643, she charges Descartes to refrain from making their exchange public,¹ and her letter of 10 October 1646 demonstrates that they considered communicating in code. Yet later on, without Elisabeth's permission, Descartes, through his envoy Pierre Chanut,² sent Queen Christina of Sweden a copy of both sides of their exchange on the sovereign good. Chanut, in a letter to Elisabeth of 19 February 1650 informing her of Descartes' death, asked for permission to make her letters to Descartes public, suggesting that it might be to her advantage to have their correspondence more widely known.³ Elisabeth, however, re-

1. In concluding her letter of 6 May 1643, the first that we have, she charges Descartes, as "the best doctor for my soul," to observe the Hippocratic oath.

2. Descartes attaches these letters to his letter to Chanut of 20 November 1647, *Oeuvres de Descartes*, ed. Charles Adam and Paul Tannery, 11 vols. (Paris: Cerf, 1897–1913; new ed., Paris: Vrin, 1964–7; reprint, Paris: Vrin, 1996), 5:86–88 (cited hereafter as AT); *The Philosophical Writings of Descartes*, ed. John Cottingham, Robert Stoothoff, and Dugald Murdoch, and for vol. 3, Anthony Kenny, 3 vols. (Cambridge: Cambridge University Press, 1984–1991), 3:326–27 (cited hereafter as CSM or CSNK, respectively). He advises Elisabeth that he has done so in his letter to her of the same date. Chanut (1601–62) was the French resident in Stockholm from 1645 to 1649 and was appointed French ambassador to Sweden in 1649. As a close friend to Descartes, he served as intermediary between Descartes and Queen Christina and was largely responsible for Descartes' accepting her invitation to Sweden. For how Chanut figures in the correspondence with Elisabeth, see Descartes to Elisabeth, 20 November 1647, October 1648, and June 1649, and Elisabeth to Descartes, 23 August 1648.

3. AT 5:471.

Christine de Pizan, *Debate over the "Romance of the Rose"*, edited and translated David Hult

Christine de Pizan, *Early Defense of Women Poems*, edited and translated by Thelma Fenster

Christine de Pizan, *Life of Charles V*, edited and translated by Nadia Margolis

Christine de Pizan, *The Long Road of Learning*, edited and translated by Andrea Tarnowski

Vittoria Colonna, Chiari Matraini, and Lucrezia Marinella, *Who is Mary? Three Early Modern Women on the Idea of the Virgin Mary*, edited and translated by Susan Haskins

Pernette du Guillet, *Complete Poems*, edited with an introduction by Karen James, translated by Marta Finch Koslowsky

Sister Margaret of the Mother of God, *Autobiography*, edited with an introduction by Cordula van Wyhe, translated by Paul Arblaster and Susan Smith

Hortense and Marie Mancini, *Memoirs of Hortense and Marie Mancini*, edited and translated by Sarah Nelson

Marguerite de Navarre, *Selected Writing*, edited and translated by Rouben Cholakian and Mary Skemp

Lucrezia Marinella, *Enrico, or Byzantium Conquered*, edited and translated by Maria Galli Stampino

Valeria Miani, *Celinda: A Tragedy*, edited with an introduction by Valeria Finucci, translated by Julia Kisacky

Cecilia del Nacimiento, *Autobiography and Poetry*, edited with an introduction by Sandra Sider, translated by Kevin Donnelly and Sandra Sider

Sister Giustina Niccolini, *Chronicle of Le Murate*, edited and translated by Saundra Weddle

Antonia Tanini Pulci, *Saints' Lives and Biblical Stories for the State (1483–1492)*, edited by Elissa Weaver, translated by James Cook (a new edition of *Florentine Drama for Convent and Festival*, published in the series in 1997)

Gaspara Stampa, *Complete Poems*, edited and translated by Jane Tylus

Sara Copio Sullam, *Jewish Poet and Intellectual in Early Seventeenth-Century Venice*, edited and translated by Don Harrán

Maria Vela y Cueto, *Autobiography*, edited with an introduction by Susan Laningham, translated by Jane Tar

Women Religious in Late Medieval and Early Modern Italy: Selected Writings, edited and translated by Lance Lazar

Maria de Zayas y Sotomayor, *Exemplary Tales of Love and Tales of Undeceiving*, edited and translated by Margaret Greer and Elizabeth Rhodes



Willem van Honthorst, *Elisabeth as Diana* (c. 1640). Oil on wood. Verwaltung der Staatlichen Schlösser und Gärten, Germany.

fused permission and requested that the letters be returned to her.⁴ It is quite clear that, at least from Elisabeth's point of view, the correspondence was not intended for any audience. While Descartes did see things somewhat differently, Elisabeth's wishes were respected. While Descartes' literary executor, Claude Clerselier, published many of Descartes' letters to Elisabeth

4. While we do not have Elisabeth's reply, Chanut's second letter indicates her desire to keep their correspondence private. Chanut pressed her to allow at least some of her letters to be made public "to serve as a geometrical demonstration of what he [Descartes] wrote" in his

in his edition of Descartes' correspondence,⁵ Elisabeth's side of the correspondence remained unpublished.

Its privacy marks the exchange as different from other canonical instances of philosophical correspondence—for example, Plato's, Seneca's, and Cicero's letters—which were quite public. Indeed, Descartes' other correspondence seems to have been widely circulated, in accord with common practice. Not much later in the seventeenth century, women thinkers made public the private thoughts contained in correspondence. Mary Astell's letters to John Norris on the love of God were published,⁶ and though Margaret Cavendish's *Philosophical Letters* involved an imagined correspondence,⁷ it was premised on blurring this distinction between the public and private in intellectual life.

The privacy of this correspondence need not compromise its status as a work with regard to Descartes. Not only did he share portions of the correspondence, but also philosophical exchanges were simply part of his work. While readers look first to Descartes' published works to glean the philosophical theses he put forward, in order to understand those theses we turn to his correspondence. A full five of the eleven volumes of Descartes' *Oeuvres* are devoted to correspondence, and the proportion of his corpus devoted to exchanges with others only increases if we include the Objections to his *Meditations* along with his Replies to Objections, both of which were originally published with that work. Indeed, this is the framework within which readers of the correspondence between Descartes and Elisabeth have usually read their exchange. In trying better to understand central issues in Descartes' philosophical program—his account of the union of mind and body, his ethics, his account of the passions, his political philosophy—scholars turn to the correspondence with Elisabeth for further insight, historical background, or in the case of his idea of the sovereign good and his political philosophy, the most well-considered formulation of his views.

It is harder to know how to treat the correspondence with regard to Elisabeth, for there are no other extant philosophical writings by her. Her

dedicatory letter to the *Principles of Philosophy*. Elisabeth does not seem to have bended. See AT 5:472–74.

5. *Lettres de Monsieur Descartes*, ed. Claude Clerselier, 3 vols. (Paris: Angot, 1657–67). For a thorough account of the provenance of these letters, as well as others of Descartes, see the introduction to *The Correspondence of René Descartes 1643*, ed. Theo Verbeek, Erik-Jan Bos, and Jeroen van de Ven (Utrecht: Zeno Institute for Philosophy, 2003).

6. John Norris, *Letters concerning the Love of God* (London: Samuel Manship and Richard Wilkin, 1695).

7. Margaret Cavendish, *Philosophical Letters, or Modest Reflections on some Opinions in Natural Philosophy* (London, 1664).

letters to Descartes are her philosophical writings. Her letters are thus different from standard philosophical correspondence in at least two ways. They are not written with a wider audience in mind, nor do they supplement other written work. Complicating matters is the fact that so little is known about the place women held in mid-seventeenth-century intellectual life. Elisabeth's engagement in public affairs, from lobbying universities on behalf of professorial candidates to keeping abreast of peace negotiations to arranging marriages for her siblings, makes her something much more than the learned maid defended by her acquaintance Anna Maria van Schurman. For learned maids, according to van Schurman, should study the fine arts, letters, and the sciences, but they should consider military, legal, and political matters only theoretically, for they are "less fitting or necessary." For her, women's learning is to be conducted in private and its effects are to be seen in private. Its aim is to perfect their knowledge of God and assure salvation.⁸ While Elisabeth was educated in private by tutors, this education was clearly put to public use and was meant to have served her well in governing, should she have married appropriately or the family have regained its fortunes. Moreover, Elisabeth's exchange with Descartes predates the *salons* of the latter part of the century, and she does not seem to fit the category of *salonnière*. Elisabeth certainly corresponded with Descartes and sought out intellectual contact with others, but her goal does not seem to have been to form a social circle premised on intellectual discussions. Perhaps Elisabeth stands in an intellectual category all her own—her peculiar position as exiled royalty would allow for that—or perhaps she conforms to a role available to women of a certain class in the mid-seventeenth century, one that proved to be short-lived. Without more study of women intellectuals of the middle part of that century we cannot decide the question.

Without a clearly defined category into which we might fit Elisabeth, I propose to read her side of the correspondence just as we would any other philosophical work. Elisabeth's writings here are substantial, and they afford us a clear sense of her intellect. Moreover, even though she does not put forward theses, as she might have in a treatise, essay, discourse, or other genre of published work, with proper attention we gain a clear sense of her philosophical commitments. Her remarks to Descartes, including her objections to his own positions, are internally consistent. She does not raise objections simply because it is possible to do so. That is, she does not simply press Descartes along certain lines in an effort to help him clarify his position.

8. Anna Maria van Schurman, *Whether a Christian Woman Should Be Educated*, ed. and trans. Joyce L. Irwin (Chicago: University of Chicago Press, 1998), 27.

tion against dissenters, although sometimes her positions do take this form. Her more central objections derive from a set of commitments she holds consistently throughout the correspondence.

Focusing on Elisabeth's philosophical contribution was, of course, almost impossible without any written record of her thought. However, with the revival of interest in Descartes by Victor Cousin in the early nineteenth century, scholars wanted to hear more of what Elisabeth had to say. By then, her letters had gone missing, and all that could be heard of Elisabeth's voice was its echo in Descartes' replies to her. Elisabeth's letters reappeared in the mid-1870s, when Frederick Muller, an antiquarian bookseller, found them amid uncatalogued papers at Rosendael castle outside Arnhem in the Netherlands.⁹ Muller notified the philosopher A. Foucher de Careil, who published the letters in 1879, along with two letters of Queen Christina of Sweden.¹⁰ Both sides of the correspondence were then published in the *Oeuvres* of Descartes, edited by Charles Adam and Paul Tannery, who consulted the manuscripts.¹¹ Jacques Chevalier also consulted the manuscripts in his edition of Descartes' letters on moral philosophy.¹² But then the manuscripts went missing once again. They have only just been recovered, once again in the collection of the van Pallandt family, the former owners of Rosendael.¹³ The manuscripts are not in Elisabeth's own hand but are copies. The provenance of the copies is mysterious.¹⁴

The mystery of the origin of the letters can divert us from what Elisabeth has to say, even though we now have her letters. Moreover, the correspondence itself contains additional diversions. For one, there are gaps in the correspondence that raise an array of questions about how it fits together. Why is the exchange over the interaction and union of mind and

9. Rosendael then belonged to Baron Reinhardt J. C. van Pallandt (1826–99). Frederick Muller (1817–81) published his finding in a short article, "27 onuitgegeven brieven aan Descartes," *De Nederlandsche Spectator* (1876): 336–39.

10. A. Foucher de Careil, *Descartes, la Princesse Elisabeth, et la Reine Christine, d'après des lettres inédites* (Paris and Amsterdam: Germer-Baillière/Muller, 1879).

11. See note 2 above.

12. René Descartes, *Lettres sur la morale*, ed. Jacques Chevalier (Paris: Boivin, 1935).

13. Professor Theo Verbeek and his coresearchers, persistent in their development of a new edition of Descartes' correspondence, finally succeeded in retrieving these manuscripts in 2003. Through the efforts of Verbeek's research team, and in particular Jan-Erik Bos, the manuscripts have been digitally photographed, though at the time of this writing they have yet to be professionally microfilmed.

14. Verbeek speculates that they are a copy of a copy made surreptitiously by Chanut at the time of Descartes' death, even though Chanut assured Elisabeth he would do no such thing. Further details can be found in the note on texts and translation.

body abruptly suspended before the problem at hand has been satisfactorily resolved? How do Elisabeth and Descartes make the transition from discussing the vagueness of Descartes' account of the union of mind and body to the methods of algebraic geometry? Why does Elisabeth feel she can turn to Descartes with her medical problems in the summer of 1644? Why does the exchange pick up again only when he once again deigns to serve as her physician? Were letters exchanged which are now lost? Or did Descartes and Elisabeth continue their conversations in person?

Historically, there has been another diversion from Elisabeth's philosophical position. Many have been moved to wonder about just what sort of relationship existed between Elisabeth and Descartes. Was it simply an intellectual relation? Did Elisabeth take Descartes as a kind of father figure, standing in the stead of her own father, who died in 1632 when she was thirteen? Did Descartes take Elisabeth as an adopted daughter, standing in the stead of his own daughter Francine who died at age six in 1640? Was there a romantic liaison between the two? Readers have a penchant for profiling the personalities of the two correspondents, and so perhaps it is unsurprising that they have spun from these letters elaborate historical narratives meant to answer one or another of these questions.¹⁵ In this introduction I shall try to resist the temptation to extrapolate from the letters we have to the drama that might underlie them. Telling such a story for oneself is, after all, one of the great sources of pleasure in reading this correspondence.

This pleasure should not detract from that of working through philosophical topics being discussed. Much ink has been spilled trying to sort out Descartes' views as presented in this correspondence. I will not add to that discussion here. Interested readers should consult the bibliography for further direction on this point. I shall, however, outline the central philosophical issues addressed in the correspondence and move on to suggest a particular interpretation of Elisabeth's writings. Readers have only just begun to take Elisabeth's side of the correspondence as representing a positive philosophical view rather than simply a reaction to Descartes' own program. The interpretation I suggest here is meant to be a starting point, to help readers think carefully about Elisabeth's side of the correspon-

dence and so to hear her voice. Before turning to the philosophical content, I provide some biographical notes on both Elisabeth and Descartes.

BIOGRAPHICAL NOTES: PRINCESS ELISABETH OF BOHEMIA

Elisabeth Simmern van Pallandt was born in Heidelberg on 26 December 1618, the third child and eldest daughter of Frederick V, Elector Palatine and later king of Bohemia, and Elizabeth Stuart, daughter of James I of England and sister of Charles I. Elisabeth was one of thirteen children, two of whom, Louis and Charlotte, died in infancy. She died on 8 February 1680 as abbess of the Lutheran convent at Herford in the Rhine valley. Relatively little is known about her life outside of her family relations. These relations, however, not only provide a context for some of the comments Elisabeth makes to Descartes but also help situate Elisabeth in the politics of the early and mid-seventeenth century.

Elisabeth's parents' marriage in 1613 was touted as the union of English and continental Protestantism and so was taken as promise of the new strength of the Protestant movement in Catholic Europe. Shortly after their marriage, the Protestant electors of Bohemia, of which Frederick was one, revolted against the emperor of the Holy Roman Empire, Ferdinand II. This revolt culminated in the Defenestration of Prague, the event usually taken as the start of the Thirty Years' War. The electors persuaded Frederick V, as president of the Protestant Union, to assume the crown, and in August 1620 he departed Heidelberg for Prague with his wife and eldest son, Frederick Henry. Elisabeth and her older brother Charles Louis (also known as Karl Ludwig) were entrusted to the care of their paternal grandmother, Juliana of Nassau, and aunt, Catherine.

Frederick's reign was short-lived. It did not take him very long to lose the support of the electors, nor did it take Ferdinand long to regain his forces. On 8 November 1620 Frederick, no longer supported by his fellow electors, lost his new kingdom at the Battle of White Mountain. Shortly thereafter, Spanish forces took the other lands of the Palatinate, and Frederick earned for himself the title of Winter King. Frederick V and his wife, Elisabeth, along with their eldest child, Frederick Henry, and their infant son, Rupert, fled to Brandenburg, where his sister Charlotte and her husband, the elector of Brandenburg, sheltered them. With the enemy forces approaching Heidelberg, Juliana fled to Brandenburg as well, joined by her daughter Catherine, Elisabeth, and Charles Louis. In 1621, Frederick and Elisabeth moved on to The Hague, sheltered by his maternal uncle, Maurice of Nassau. Princess Elisabeth, along with several of her siblings, stayed at

15. See, for instance, Samuel Sorbière's entry on Elisabeth in his *Sorberiana, ou bons mots, rencontres agréables, pensées judicieuses et observations curieuses de M. Sorbière* (Amsterdam: George Caillet, 1694); Marie Blaise de Bury, *Memoirs of the Princess Palatine, princess of Bohemia, including her correspondence with the great men of her day* (London: Richard Bentley, 1853); Léon Petit, *Descartes et la Princesse Elisabeth: roman d'amour vécu* (Paris: Éditions A-G Nizet, 1969); Andrea Nye, *The Princess and the Philosopher: Letters of Elisabeth of the Palatine to René Descartes* (Lanham, MD: Rowman and Littlefield, 1999).

Brandenburg with her grandmother and aunts until the late 1620s, when they were sent for to The Hague.

The events in Bohemia exacerbated already existing tensions in continental Europe and developed into the Thirty Years' War. Not only did the struggle between Frederick V and Ferdinand reflect and deepen divisions between German Protestant princes and German Catholic princes, but it also served as a touchstone for worries about Hapsburg hegemony in Europe. The Spanish king intervened to help Ferdinand because both were of the Hapsburg family. War erupted in southern Germany and ignited a conflict between Denmark and Sweden that spread into northern Germany. As part of this conflict, in 1632, Elisabeth's father died as a result of wounds suffered battling on behalf of King Gustav of Sweden. Gustav was the father of Queen Christina. Eventually, the Dutch and French forces entered the war as well. Peace negotiations did not begin in earnest until 1640 and were quite protracted, even while French and Swedish forces conquered Germany. Negotiations concluded finally with the Peace of Westphalia in 1648. The Hapsburg empire was in decline, and the German economy, countryside, and population were left ravaged.

Elisabeth's siblings seemed to have figured quite prominently in her life, either through the course of events or through their rather distinctive characters. Frederick Henry, the eldest child, was born in 1614 and died at fifteen as the result of a boating accident during a tour he and his father made of the Spanish fleet at harbor in the Netherlands. Charles Louis was born second, in 1617. At the end of the Thirty Years' War he gained control of what remained of the Palatinate. During his reign he restored and rejuvenated the University of Heidelberg.¹⁶ Rupert, born in 1619, gained fame on two fronts: for his chemical experiments and pioneering use of the engraving technique of mezzotint, and for his soldiering in defense of the crown during the English Civil War. He was instrumental in the founding of the Hudson's Bay Company.¹⁷ Maurice, born in 1620, was also known for his soldiering, though he died in battle in 1654. Elisabeth's sister, Louise Hollandine, was born in 1622 and gained fame as an accomplished painter, taught by Gerritt van Honthorst. She converted to Catholicism and con-

16. Elisabeth's later correspondence with him, published in Alexandre Foucher de Careil, *Descartes et la Princesse Palatine, ou de l'influence du Cartésianisme sur les femmes au XVII^e siècle* (Paris: Auguste Durand, 1862), reveals a relationship fraught with disputes over money.

17. Rupert has worked his way into common parlance in surprising ways. Prince Rupert's Exploding Drops were introduced in Britain by him in the 1640s, providing his uncle Charles I with great pleasure. Melted glass dripped into cold ice water solidified into a drop with a thin tail. While the bulbous end is tremendously hard, when the tail is snapped, the body explodes into a glass powder—hence, their name “exploding drops.” In addition, the British Columbia logging town of Prince Rupert is named after him.

cluded her life as abbess of the convent at Maubisson. Louis, the next born, died at sixteen months. Edward was born in 1624. In this correspondence with Descartes, Elisabeth shows herself to be appalled at the transparency of his bad faith in converting to Catholicism to marry Anne of Gonzaga.¹⁸ Apparently, Louise Hollandine converted in good faith. The sisters remained close until Elisabeth's death.¹⁹ The next sister, Henrietta, was born in 1626 and married a Hungarian nobleman, Sigismund Rakoczy. She died in 1651, just a few months after her marriage. Charlotte, the next sibling, died at age two. Philip, born in 1629, and Sophie, born in 1630, both figure in the correspondence. Sophie served as intermediary for Descartes' letters to Elisabeth while Elisabeth was in Berlin. Later, Sophie, through her marriage to Ernst Augustus, became electress of Hanover. Her son became George I of England, but she is also renowned for her intellectual patronage, most particularly of Leibniz,²⁰ who tutored her daughter Sophie-Charlotte. Philip's appearance in these letters is not so distinguished. He is the source of some difficulty on Elisabeth's part, having challenged a suitor of his mother's (and perhaps of his sister Louise as well) to a duel, only to stab him to death in a public square instead. Elisabeth, for defending her brother's actions, was sent away from The Hague by her mother.²¹ Philip died battling for Spain in 1650.

In 1633, Elisabeth received a proposal of marriage from King Wladislaw of Poland, a Catholic. The marriage would have been beneficial to the Palatine fortunes, and negotiations proceeded. The marriage was agreed to, provided that Elisabeth could retain her Protestant faith. The king of Poland himself consented, but in order to undertake the marriage he needed the approval of the estates of Poland. They refused to consent to the marriage of their Catholic king to a Protestant. The arrangements could have gone forward had Elisabeth been willing to convert to Catholicism, but she was

18. See Elisabeth's letter of 30 November 1645 and Descartes' reply of January 1646.

19. Some later correspondence between Louise Hollandine and Elisabeth can be found in Foucher de Careil, *Descartes et la Princesse Palatine, ou de l'influence du Cartésianisme sur les femmes au XVII^e siècle*.

20. Gottfried Wilhelm von Leibniz (1646–1716) was a German philosopher and mathematician. Philosophically, he is known for his theory of monads and doctrine of preestablished harmony, as well as his articulation of basic logical principles concerning necessary and contingent truths, the principle of sufficient reason, the principle of noncontradiction, and the principle of identity of indiscernibles. He is often credited with inventing the differential and integral calculus, though there is a dispute about whether he or Isaac Newton arrived at the calculus first.

21. These events are taken to have precipitated Elisabeth's visit to Germany (see Elisabeth to Descartes, July 1646), though they might well be connected to the sadness Descartes remarks on in his letter of 18 May 1645, a year earlier.



Louise Hollandine, *Henrietta, Princess Palatine* (seventeenth century). Oil on canvas, 28 × 23 in. Courtesy Mallett, Inc., New York.

she earned the nickname "La Grecque" from her siblings. At The Hague, she may well have been tutored by Constantijn Huygens, as he was present at court, and Elisabeth did correspond with him.²² A remark she made to Descartes suggests that she read Machiavelli's *The Prince* around 1640, that is,

22. Constantijn Huygens (1596–1687) was a humanist scholar and poet and the father of mathematician and physicist Christian Huygens. For the correspondence see *De Briefwisseling van Constantijn Huygens (1608–1687)*, ed. J. A. Worp, Rijks Geschiedkundige Publicatie, 24 The Hague: Martinus Nijhoff, 1915).



Louise Hollandine, *Elisabeth, Princess Palatine* (seventeenth century). Oil on canvas, 28 × 23 in. Courtesy Mallett, Inc., New York.

unwilling to do so. By the end of 1635 or early 1636, it was clear that the marriage would not happen. While there were other rumors of potential matches for Elisabeth, none came to pass, and she remained unmarried.

In part because of her unsettled childhood, it is hard to know how Elisabeth was educated. It is clear that she was schooled in painting, music, and dancing, as well as in languages, which certainly included Latin, Greek, French, English, and German, and perhaps others. We can also infer that she was taught logic, mathematics, politics, philosophy, and the sciences. She is consistently represented as studious and intellectual, so much so that

when she was twenty-two.²³ She learned her mathematics, and in particular algebra, from Stampioen's textbook,²⁴ which is particularly interesting since Descartes and Stampioen had several public disputes over solutions to problems. Elisabeth interacted with the celebrated Anna Maria van Schurman,²⁵ whom, much later in life, she came to shelter at the convent at Herford, along with the Labadists,²⁶ whom van Schurman had joined. There is some suggestion that she attended lectures at the University of Leiden, but it is unclear what evidence there is for this claim.

The first written record of Elisabeth's intellectual interests predates her correspondence with Descartes by several years. In 1640, Edward Reynolds, an English preacher, schooled at Merton College, Oxford, known for his eloquent sermons, dedicated his *A Treatise of the Passions and Faculties of the Soule of Man* to Elisabeth.²⁷ His dedicatory letter suggests that Elisabeth had seen a draft manuscript and approved of it, so there must have been some correspondence between them. This correspondence has not as yet been found. The dedication is included in the appendix to this volume.

Elisabeth's correspondence with Descartes constitutes by far the most substantial record of her philosophical thought. The correspondence begins in 1643, after Elisabeth had read Descartes' *Meditations on First Philosophy* and requested the Frenchman Alfonse Pollot²⁸ to query its author. The correspondence continues until 1649, shortly before Descartes' death. I discuss the substance of the correspondence in more detail below. The correspondence does reveal a few more details of Elisabeth's intellectual life. Her letter to Descartes concerning her efforts to support his disciple Frans van Schooten suggests that she had some connection to the university at Leiden and was well regarded as a mathematician, given that van Schooten was being considered

23. See Elisabeth to Descartes, 10 October 1646.

24. Johan Stampioen, *Algebra ofte Nieuwe Stel-Regel* (The Hague: by the author, 1639). Stampioen also tutored Christiaan Huygens.

25. Anna Maria van Schurman (1607–79). Two letters of Elisabeth to van Schurman appear in the *Other Voice* volume of van Schurman's writings, *On Whether a Christian Woman Should be Educated*, 57–60, 66–67.

26. Labadists were followers of Jean de Labadie (1610–74), a French mystic who turned to Protestantism after having been a Catholic priest. Labadie's followers formed a religious community that lived simply and held goods and children in common. In part because of their living practices, they courted controversy wherever they went.

27. Edward Reynolds (1599–1676) was a Caroline prelate whose sermons were recognized for their style and later collected and published. His *Treatise of the Passions and Faculties of the Soule of Man* (London: Robert Bostock, 1640) has been reissued in facsimile, edited by Margaret Lee Wiley (Gainesville, FL: Scholars' Facsimiles and Reprints, 1971). I have not been able to locate any correspondence between Elisabeth and Reynolds.

28. Alphonse Pollot (1602–68) was a gentleman in waiting to the prince of Orange.

for a mathematical post.²⁹ Indeed, there are at least two letters from John Pell referring to Elisabeth's mathematical talent as adduced from her relation to Descartes.³⁰

Because of her family, both its rank and its precarious position, Elisabeth was also quite involved in politics. As early as 1639 she played a state role, representing the queen, her mother, in sending letters of condolence. In the early 1640s she corresponded with Thomas Roe regarding Roe's efforts to negotiate her brother Rupert's release from prison, as well as other political matters.³¹ This latter incident formed part of the English Civil War, as Rupert as well as another brother, Maurice, fought in defense of their uncle, Charles I. Elisabeth's correspondence suggests she kept abreast of developments in that matter.

The English Civil War, really a series of three wars, and involving Ireland, Scotland, and Wales as well as England, was, in essence, a battle between the royalist Cavaliers and the parliamentarian Roundheads. The Cavaliers followed Charles I in defending the divine right of kings and were taken to be supporters of the episcopacy of the Anglican church. The Roundheads insisted that Parliament had rights and privileges independent of the crown and were aligned with Puritanism. The war was characterized not only by military campaigns but also by economic maneuvering. Charles I's income rested on his ability to collect taxes. Taxes, however, were set and collected through parliamentary acts, and initially with the king's dissolution of Parliament in 1640 and later with Parliament's opposition to the king, his income was compromised. In an effort to raise more funds both for himself and for his

29. See Elisabeth to Descartes, 27 December 1645.

30. John Pell (1610–85), an English mathematician, is most famous for his work in algebra, and in particular for Pell's equation, $y^2 = ax^2 + 1$ (where a is a nonsquared integer). From 1643 to 1646 Pell taught mathematics in Amsterdam, and Elisabeth might well have met him there. The first letter, from 1657, testifies to Elisabeth's expertise in Cartesian philosophy (British Library, additional MSS 4364, letter book of John Pell, 1655–58 f.150). The second letter, from 1665, also from Pell's letter book, directed a Mr. Haak to ask Elisabeth for her solution to the problem of the three circles (British Library, additional MSS 4365 f.198). Mr. Haak is no doubt Theodore Haak (1605–90). Haak was part of the Hartlib Circle, serving as a link between it and the continent. He later played a similar role with the Royal Society. He is also known for his translation of the Dutch Bible Annotations into English and *Paradise Lost* into German. I am greatly indebted to Carol Pal for drawing these letters to my attention.

31. See Anna Creese, "The Letters of Elisabeth, Princess Palatine: A Seventeenth Century Correspondence" (Ph.D. diss., Princeton University, 1993), 51–54; and *Calendar of State Papers, Domestic Series, of the reign of Charles I*, 23 vols. (London: Longmans, 1856–1924), in particular vol. 18 (Great Britain, 1641–43), 4, 91, 183. Additional letters of Elisabeth regarding matters of state and family can be found in *Calendar of State Papers, Domestic and Calendar of State Papers and Manuscripts, Relating to English Affairs, existing in the archives and collections of Venice, and in other libraries of Northern Italy*, 24 vols. (London: HMSO, 1864–1923).

campaign in the Civil War, Charles imposed taxes himself, a move that did not garner support for his cause. As the English crown was largely responsible for supporting Elisabeth's mother and her family, Charles I's precarious position weighed heavily not only on the family's political fortunes but also on their immediate economic status. The struggle between the two sides continued until the royalists suffered heavy losses against the Roundhead New Model Army at the Battle of Naseby in 1645. From there the tide turned against Charles I. He surrendered to the Scots in May 1646, and the Scots surrendered him to Parliament in early 1647. At this point, however, conflict escalated again. Charles escaped to the Isle of Wight and agreed with the Scots to impose Presbyterianism in exchange for their support. On the other side, the New Model Army under Oliver Cromwell became increasingly politicized. The Royalist cause collapsed in late 1648, and Charles I was tried and then beheaded on 30 January 1649. His son, crowned Charles II shortly thereafter in Scotland, attempted to carry on the battle with the help of Scottish forces, but he was defeated soundly by Cromwell. In 1651 he fled to France. England was ruled as a commonwealth under the protectorate of Cromwell. With Cromwell's death in 1658, opportunity for a restoration of monarchy arose, and in 1660 Charles II was restored to the English throne.

In her correspondence with Descartes, we see Elisabeth fully apprised of her brothers' efforts at securing their own political positions, Philip in signing a treaty with the prince of Venice, and Charles Louis in securing a small portion of the Palatine lands in the Treaty of Westphalia.³² Indeed, one gathers from her later letters to Descartes that she herself may have attempted a trip to Sweden to broker a further concession in that treaty by Sweden.³³ From 1649–50 Elisabeth played a principal role in negotiating her sister Henrietta's marriage to Ragoczy. And there is additional correspondence with Henry Coventry, the Secretary of State for Northern Lands in England, indicating her involvement in political matters.³⁴

In 1660, Elisabeth entered the Lutheran convent at Herford as coadjutrix, where her cousin Elizabeth Louise was abbess. Her dowry was negotiated and ultimately financed by her uncle the elector of Brandenburg. In 1667, when Elizabeth Louise died, Elisabeth herself became abbess. Just as in other parts of Elisabeth's life, there is relatively little information available

32. See Elisabeth to Descartes, 25 April 1646 and May 1647.

33. See Elisabeth to Descartes, 30 June 1648, July 1648, and 23 August 1648.

34. See *Correspondence and Papers of Henry Coventry, Secretary of State, 1672–1680*, and *His Brother, Sir William Coventry, Secretary to the Duke of York As Lord High Admiral*, Coventry Papers, Archives of the Marquess of Bath, Longleat, England. Thanks to Carol Pal for alerting me to these letters.

about her life at the convent. She seems to have remained active intellectually, as Pell suggests that Theodore Haak³⁵ contact her during this period. Her response indicates a familiarity with Henry More, the Cambridge Platonist.³⁶ She also seems to have been a very effective manager of the convent's lands, as its estates prospered and recovered from the ravages of the Thirty Years' War. As abbess, she also was particularly welcoming to marginal religious sects. At the request of her old acquaintance, Anna Maria van Schurman, she extended the convent's hospitality to the followers of Jean Labadie, managing to convince her benefactor, the elector of Brandenburg, that all would turn out well. The group's communitarian spirit, however, led to conflicts with the townspeople, who requested that the convent ask the Labadists to leave. Given the pressure from both the elector and the locals, Elisabeth obliged. This episode, however, did not prevent her from hosting the Quakers. Robert Barclay³⁷ visited the convent in 1676, William Penn³⁸ stopped in Herford for several days during his journey to the Rhineland in 1677, and other Quakers, such as George Fox,³⁹ may also have visited. The Quakers were clearly trying to convince Elisabeth to join their sect, and while she was always gracious in correspondence, she remained skeptical that she was capable of the enthusiastic intuition of God they required. Elisabeth's exchanges with Penn and Barclay are included in the appendix to this volume.

Further evidence of Elisabeth's continued intellectual engagement includes a very short exchange with the Cartesian philosopher Nicholas Malebranche, concerning his *La Recherche de la vérité*,⁴⁰ and a report that Francis

35. See above, note 30.

36. Henry More (1614–87) was committed to proving the existence and providential nature of God by proving the existence of an immaterial spirit. While More was a dualist, he rejected the mechanist explanation of the natural world, preferring to account for the motions of bodies by the activity of spiritual substance.

37. Robert Barclay (1648–90) was a Scottish Quaker theologian, known for his writings on Quakerism. His correspondence with Elisabeth can be found in *Reliquiae Barclianae. Correspondence of Colonel David Barclay and Robert Barclay of Urie and his son Robert, including letters from Princess Elisabeth of the Rhine, William Penn, George Fox and others, etc.* (London: Winter and Bailey, 1870 [Lithograph]).

38. William Penn (1644–1718) was a leading figure among English Quakers and the founder of the American colony of Pennsylvania. His exchange with Elisabeth is found in his *An Account of W. Penn's travels in Holland and Germany Anno MDCLXXVII*, 2nd corrected ed. (London: T. Sowle, 1695).

39. George Fox (1624–91) was a founder of the Society of Friends, which became the Quakers.

40. Nicholas Malebranche (1638–1715), an Oratorian priest, was a principal figure in the development of Cartesianism. See his *Oeuvres Complètes*, ed. André Robinet (Paris, 1958–84). His major works include *La recherche de la vérité* (1674–75), *Traité de la nature et de la grace* (1680), and *Entretiens sur la métaphysique et sur la religion* (1688), as well as *Traité de la morale* (1683). According to

Mercury van Helmont⁴¹ and Leibniz were at her bedside near her death. It should be clear that we have only fragments of an intellectual life. One cannot help but wonder what else Elisabeth may have written. Admittedly, because of her public responsibilities and, later, those of governing the convent at Herford as its abbess, it is unlikely that she ever produced a full treatise. Doing so requires a stretch of free time, after all. But might there not be other correspondence that has gone missing, correspondence that reveals again the range of her philosophical interests and that might reveal more of her own positive intellectual positions?

Elisabeth's epitaph reads: "Most Serene Princess and Abbess of Herford, born of Palatine Electors and Kings of Great Britain, unconquered and in all fortune full of constancy and fortitude, singularly capable and prudent in affairs and of an erudition worthy of wonder, celebrated beyond the condition of her sex, friend of learned men and of princes."⁴²

BIOGRAPHICAL NOTES: RENÉ DESCARTES

René Descartes was born in La Haye, near Tours, France, on 31 March 1596. His mother died when he was fourteen months old, and though he appeals to his mother's untimely death in his correspondence with Elisabeth, he is somewhat liberal with the facts there.⁴³ His grandmother raised him along with his brother. His father was a member of the Brittany parliament. What follows is a biographical sketch. There are a number of very good recent biographies of Descartes, cited in the bibliography, which interested readers may consult for further detail.

Descartes received his education at the flagship Jesuit Collège de La Flèche in Anjou, roughly during the period 1606–14. After La Flèche, Descartes obtained a baccalauréat and license in law at the University of Poitiers in 1616. In 1618, Descartes traveled to Holland where he joined the army of

Robinet, these letters are no longer available. In his edition of Malebranche's *Oeuvres*, he summarizes their content based on Père André's biography of Malebranche.

41. Francis Mercury van Helmont (1614–98) was a son of the alchemist Jan Baptiste van Helmont. His study of Kabbalah was influential on Anne Conway. The senior van Helmont's alchemical vitalism was influential on Margaret Cavendish.

42. Serenissima Princeps, et Antista Herfordiensis Elisabeth Electoribus Palatinis et Magnae Britanniae Regibus orta Regii prorsus animi virgo invicta in omni fortuna constantia et gravitate singulari in rebus gerendis prudentia ac dexteritatis admirabili eruditione atque doctrina supra sexus et aevi conditionem celeberrima regum studiis, principum amicitia doctorum virorum literis et monumentis omnium christianorum gentium linguis et plausibus sed maxime propria virtute sui nominis immortalitatem adeptis.

43. See Descartes to Elisabeth, May or June 1645.

Maurice of Nassau and as a soldier traveled around Europe, fighting in the Thirty Years' War.⁴⁴ While some have speculated that Descartes was a part of the forces that defeated Elisabeth's father, Frederick V, at the Battle of White Mountain, this does not seem to have been the case. During his foray as a soldier, Descartes composed his *Compendium Musicae*, a work of music theory, in which he also suggests a naturalist account of music's capacity to affect us emotionally. In 1622 Descartes returned to France and spent some time in Paris as well as more time traveling in Europe.

In 1628 Descartes finished composing what he wrote of *Rules for the Direction of the Mind*. In this work, which remained incomplete, he began to develop an account of human knowledge that took as inspiration the methods of mathematics and geometrical construction. Central to this account is the proper ordering of our thoughts. Achieving this order involves first reducing complicated propositions to simpler ones and then reconstructing them through intuition of the relations between the simple thoughts. In this same year, Descartes left for Holland, a country in which he was to make his home until 1649, when he departed for Sweden at the invitation of Queen Christina. During this time, he made occasional trips back to France to conduct various business matters.

While Descartes lived in Holland throughout this period, he changed his address rather frequently. These moves have no easy explanation, though they may well have been due to a justified caution on his part. While he no doubt found Dutch culture somewhat more tolerant than that of Jesuit-dominated France, even in the Netherlands the new mechanical science and its associated worldview were far from widely accepted. Indeed, though in 1629 Descartes began working on *Le Monde*, a mechanist treatment of physics, he abandoned his plans to publish it upon the condemnation of Galileo in 1633. He did, however, circulate it, and it is almost certain that he shared a copy with Elisabeth. He adverts to it in complaining about Henricus Regius' misguided appropriation of his work.⁴⁵

In 1635, Descartes' daughter Francine was born. Her mother was a servant in Descartes' household. While Descartes did not marry this woman, he did recognize the child as his own, as his name appears in the church baptismal records. Francine died in 1640, and her death seems to have made an

44. For Descartes' own account of this part of his life, see part 1 of his *Discourse on the Method*.

45. See Descartes to Elisabeth, December 1646, and the letters following it. He also adverts to an unpublished treatise on animals, possibly his *Treatise of Man*, in his letter to Elisabeth of 6 October 1646.

impact on him.⁴⁶ It was around this time that Descartes was first introduced at the court of the exiled queen of Bohemia in The Hague.

In 1637, Descartes published his *Discourse on the Method for Rightly Conducting Reason*. There he sets out the basic tenets of his philosophical position: the method of simplifying problems and then ordering these simple thoughts into more complex objects of knowledge; the claim that mind is essentially a thinking thing and not corporeal; that we can avoid error by assenting only to those things we perceive clearly and distinctly; that God exists and is a perfect being; that the material world is extended and nonthinking and that its workings are to be understood mechanistically as a chain of efficient causes; and that the human being is a union of mind and body. The *Discourse* was published with three essays, *Optics*, *Meteorology*, and *Geometry*, which are meant to realize the fruits of the method in the sciences. The work was published in French, in part to signal its break with the philosophy of the Schools, where the language of choice was Latin and the disputation was the standard form. It was also written in the vernacular to reach as many readers as possible. In 1641 Descartes offered a more rigorous presentation of his philosophical program in his *Meditations on First Philosophy*, defending his dualist metaphysics and his epistemology. The *Meditations* was originally published together with six sets of objections and replies. A seventh set was included in the 1642 edition, along with a letter to Father Dinet, in which Descartes addressed additional concerns about the work. While it is likely that Descartes and Elisabeth met in the Bohemian court at The Hague prior to the publication of the *Meditations*, their correspondence began in 1643 with Elisabeth's querying Descartes about the coherence of his account of the human being presented in the Sixth Meditation.

In that same year, Cartesian philosophy was condemned at the University of Utrecht at the instigation of Gisbertus Voëtius. There are different ways of understanding the battle between Voëtius and Descartes. On the one hand, it can be read simply as a battle between a theologian and a philosopher. This reading, however, imposes a division between disciplines that was not at all in place until the late seventeenth century, if by then. As theologians such as Voëtius were proponents of the philosophical doctrines of Aristotelianism, a more plausible explanation of the controversy is the challenge that the new mechanist natural philosophy posed to Aristotelianism and the hegemony of its disciples. While the new science began developing long before Descartes, Cartesianism set it on a philosophical foundation,

46. In a letter of mid-January 1641, thought to be to Pollot, Descartes speaks of his sadness at her death. See AT 3:278–79, CSMK 167–68.

which gave it both roots and a certain legitimacy. Its tractability made it more threatening to the status quo.⁴⁷ Exacerbating matters, Henricus Regius, a professor of medicine at Utrecht, was promulgating Cartesianism and the new science. After initially proceeding indirectly to censor the new science, Voëtius started a pamphlet war against Descartes directly. Descartes responded in a letter to Voëtius and was summoned before the magistrates to answer to charges of irreligion. Around the same time, Voëtius's associate, Martin Schoock, was called before the University of Groningen to defend the charges he had made against Descartes. That matter was resolved, in Descartes' favor, in mid-1645.⁴⁸

In 1644, Descartes published his *Principles of Philosophy*, written in Latin and designed to serve as a textbook for the new mechanist philosophy, replacing Scholastic textbooks such as that of Eustachius.⁴⁹ The work was dedicated to Elisabeth, and in that dedicatory letter Descartes characterizes his pupil and correspondent as follows:

The outstanding and incomparable sharpness of your intelligence is obvious from the penetrating examination you have made of all the secrets of these sciences, and from the fact that you have acquired an exact knowledge of them in so short a time. I have even greater evidence of your powers—and this is special to myself—in the fact that you are the only person I have so far found who has completely understood all my previously published works. Many other people, even those of the utmost acumen and learning, find them very obscure; and it generally happens with almost everyone else that if they are accomplished in metaphysics they hate geometry, while if they have mastered geometry they do not grasp what I have written on first philosophy. Your intellect is, to my knowledge, unique in finding everything equally clear; and this is why my use of the term "incomparable" is quite deserved.⁵⁰

47. More detail on the differences between Aristotelian and mechanist accounts of the natural world can be found in the Philosophical Background section of this introduction.

48. See Elisabeth to Descartes, 22 June 1645. For further detail about the controversy, see Theo Verbeek, *Descartes and the Dutch: Early Reactions to Cartesian Philosophy (1637–1650)* (Carbondale: Southern Illinois University Press, 1992), and *La querelle d'Utrecht. René Descartes et Martin Schoock*, ed. Verbeek and Jean-Luc Marion (Paris: Les Impressions Nouvelles, 1988). See also E. J. Dijksterhuis et al., *Descartes et le cartésianisme hollandaise* (Paris and Amsterdam: PUF and Editions François d'Amsterdam, 1950).

49. Eustachius a Sancto Paulo, *Summa Theologica tripartita* (Paris, 1613–16) and *Summa philosophiae quadripartita* (Cologne, 1629 [1609]). See Roger Ariew, *Descartes and the Last Scholastics* (Ithaca: Cornell University Press, 1999).

50. AT 8A.3–4, CSM 1:192.

While it is tempting to read the high praise Descartes sings of the princess here as typical of the exaggerations and embellishments of these sorts of dedications, the consistent sophistication of the discussion in the correspondence would indicate that Descartes' praise is sincere, even if couched in the flowery prose of courtly manners. In Elisabeth's letter of 1 August 1644, we see her surprise at this dedication.

The *Principles* begins with an exposition of the metaphysical principles arrived at through the *Méditations* and then goes on in parts 2, 3, and 4 to develop a physics consistent with the view that the material world is extended and nonthinking. In particular, Cartesian physics is divested of the substantial forms of Aristotelian Scholastic philosophy. Instead, natural phenomena are explained by natural laws, derived from the nature of material substance and the nature of God as creator of that substance. From these laws follow rules of impact, which in turn are meant to explain basic physical phenomena, as well as such problematic phenomena as magnetic attraction and heaviness, by the collisions of bodies. At the end of part 4, Descartes makes a further effort to explain human nature as a union of mind and body, and in particular human capacity for sensation, from his first principles, but his account of the living world is left unfinished.

The French translation of the *Principles*, published in 1647, includes a preface in which Descartes explicates his conception of philosophy. Here, he compares "the whole of philosophy" to a tree:

The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all the other sciences, which may be reduced to three principal ones, namely, medicine, mechanics, and morals. By "morals" I understand the highest and most perfect moral system, which presupposes a complete knowledge of the other sciences and is the ultimate level of wisdom.⁵¹

This metaphor proves helpful not only for understanding Descartes' physics but also for making sense of his moral psychology and ethics presented in the correspondence with Elisabeth and his last work, *The Passions of the Soul*.

Descartes continued to work on developing an account of the living world founded on mechanist principles, beginning work in 1647 on *Description of the Human Body and the Formation of the Fetus*, which remained unpublished in his lifetime.

He also continued his correspondence with Elisabeth, and in the correspondence from 1645–47 we find the development of his moral philosophy,

51. AT 9B:14, CSM 1:186

and in particular his account of the sovereign good. That Descartes took his letters to constitute part of his philosophical program is clear, as this is the exchange he forwarded to Queen Christina. In addition, as a result of this later correspondence, Descartes' last work, *The Passions of the Soul*, was published in French in November 1649.⁵² The passions, for Descartes, while modes of thought, have a physiological cause, and with that cause a physiological manifestation. Descartes approaches this subject *en physicien*, that is, from the point of view of the natural scientist interested in the causes of the phenomenon. At the same time, insofar as our passions do represent the ways in which things are important to us, they figure importantly in our moral psychology, and Descartes punctuates his discussions of the way the passions figure in the causal economy of the human being with accounts of how we might regulate the passions to achieve as much contentment as we can in this life. These accounts resonate with what he had written earlier to Elisabeth.

In August 1649 Descartes traveled to Sweden at the request of Queen Christina to serve as her tutor. There, the climate and schedule at court were not at all conducive to his health. He contracted what is thought to have been pneumonia and died in Stockholm on 11 February 1650. Descartes' papers and possessions were returned to Paris by his friend Chanut, then the French ambassador to Sweden. His correspondence was originally published posthumously in three volumes by Claude Clerselier, his literary executor.

PHILOSOPHICAL BACKGROUND

The correspondence between Elisabeth and Descartes is an unusual philosophical correspondence in that the two manage to address the full scope of philosophical inquiry. Their discussions range from what has become one of the most central issues in contemporary philosophy—the mind-body problem—to topics in natural philosophy from physics and geometry to medicine, as well as to moral psychology, ethics, and political philosophy. Indeed, working through the correspondence serves as an exemplary introduction to philosophy. I first provide an overview of the philosophical issues engaged in the correspondence, along with some essential background for understanding those issues. In the bibliography, readers can find direction

52. Elisabeth commissions Descartes to define the passions in her letter to him of 30 September 1645.

to select secondary literature on these topics. I then move on to consider in greater depth Elisabeth's own philosophical position.

Metaphysics

With her letter of 6 May 1643, Elisabeth initiates the correspondence by posing to Descartes a very pointed question about his *Meditations on First Philosophy*: "I ask you please to tell me how the soul of a human being (it being only a thinking substance) can determine the bodily spirits, in order to bring about voluntary actions." In order to understand the exchange that follows, one has to understand something of the dualist metaphysics that structures the question of how the mind can move the body.

Descartes subscribes to a substance-mode ontology. In his philosophical system, there are infinite and finite things. God is the only infinite thing, and for finite things there are two ways of existing or being: as a substance or as a mode. A substance, or a thing, properly speaking, is capable of existing independently of anything other than God. Finite substances have modes, sometimes considered as properties or as ways of being a substance. The existence of these modes depends on the substance of which they are modes. In the Sixth Meditation Descartes defends the position that mind and body are *really distinct* entities, that mind is thinking and nonextended, and body is extended and nonthinking, and that mind and body are capable of existing apart. That is, he maintains that there are two substances: mind, or a thinking thing, and body, an extended (and so a material) thing.⁵³ Each substance has its own modes. We can think of modes of mind as particular thoughts and modes of body as particular ways of being extended in space.

Though mind and body are really distinct entities for Descartes, in the case of a human being they join together to form a true unit. Our sensations of the world around us and of the condition of our bodies are evidence of this union. But the fact that mind and body are united in the case of the human being, the fact that we have the sensations we do, raises a constellation of questions. First, there are questions about the possibility and nature of mind-body interaction: How do mind and body causally interact with one another? How can an extended thing affect a nonextended thing? And how can a nonextended thing affect an extended thing? Or alternatively, how can

modes of a nonextended thing affect modes of an extended thing, and vice versa? What kind of causation is at work? These issues are at the heart of Elisabeth's initial question. But other questions arise as well. There are questions about the metaphysical status of the union: What is the nature of the union of mind and body? Is a human being a third substance, in Descartes' sense of substance? If not, in what sense do mind and body form a true unit? And finally, there are questions of representationality: How does the mind represent the material world? That is, how, through the union, are we able to have knowledge of the world? Collectively, this constellation of questions has come to be known as the mind-body problem, and contemporary metaphysics and philosophy of mind have come to be dominated by answers to these questions. While Descartes is asked about the possibility of mind-body interaction by Pierre Gassendi in the Fifth Objections, as well as in the Sixth Objections compiled by Marin Mersenne, he offers only cursory answers in his replies there.⁵⁴ Elisabeth presses Descartes more pointedly than anyone else on this matter. In this way, she can be viewed as the first person to pose the mind-body problem.

Elisabeth's main concern is with the nature of mind-body interaction, for she does not see how an immaterial substance can affect, or cause some change in, a material substance. The accounts of causation she is willing to entertain tie causal efficacy to being extended, and since mind is not extended on Descartes' view, it is not clear how it can cause anything to happen in the body.⁵⁵ As she frames the problem, there are two alternatives open to Descartes. Either he can articulate a notion of causation that has the resources to explain mind-body interaction or he can further articulate the way in which mind is substance such that an available notion of causation could explain the way our thoughts effect actions in our body. Some contemporary commentators have claimed that any causal interaction between mind and body violates the causal principle—that any cause must have at least as much reality as its effect—articulated in Descartes' Third Meditation. Others have defended the metaphysical possibility of such interaction, arguing that since mind and body are both substances, they are of comparable reality, and their modes, as modes, are also of comparable reality.⁵⁶ It is

54. For Gassendi's objection see AT 7:339ff., CSM 2:235ff., and for that in the Sixth Objections see AT 7:420, CSM 2:283 and for Descartes' replies see AT 7:587–88, CSM 2:265ff. and AT 7:444–45, CSM 2:299–300, respectively.

55. It is significant that Elisabeth's question presupposes one or another mechanist account of causation. I discuss the significance of this in more detail below.

56. For a critic of Descartes on mind-body interaction, see Daisie Radner, "Descartes' Notion of the Union of Mind and Body," *Journal of the History of Philosophy* 9 (1971): 159–71; for

53. There is disagreement among commentators about what the "real distinction" consists in. Margaret Wilson, in her *Descartes* (New York: Routledge, 1978), defends the view that the real distinction consists in the separability of mind and body. Their being two distinct substances follows from their separability. Marleen Rozemond, in her *Descartes's Dualism* (Cambridge: Harvard University Press, 1998), argues that the real distinction follows from mind and body being two distinct substances.

worth noting that Elisabeth does not frame the problem in these metaphysical terms; she is simply looking for an acceptable account of causation.

Descartes' response to Elisabeth's initial query exacerbates the mind-body problem as expressed here.⁵⁷ First, he appeals to the "primitive notions" through which we understand the world and claims that while the primitive notion of thought explains the nature of mind and that of extension explains body, the primitive notion of the union of mind and body explains their interaction. Descartes' appeal to these primitive notions feeds questions about the metaphysical status of the mind-body union, for it is unclear whether the primitive notions are meant to correspond to the kinds of substances that exist, or whether they are epistemic primitives—the basis for our understanding. Moreover, it is not clear how the primitive notion of the union answers the question about mind-body interaction. Descartes, just as he did in his Replies to the Sixth Objections, appeals to the Scholastic notion of a real quality, and in particular to the Scholastic account of heaviness. In the same way that, for Scholastics, the real quality of heaviness is to explain why a lead ball, say, falls to the ground, so too are we to explain how the mind moves the body. The problem is that Descartes wants to maintain that the Scholastics are misguided in their account of the heaviness of bodies but that the explanatory framework is properly employed in the context of mind-body interaction. Elisabeth is quick to point out that it is not clear how the two explanatory contexts are to be distinguished from one another. It is far from clear to her why what is mistaken in the case of the heaviness of bodies should not also be mistaken in thinking about the mind-body union.⁵⁸ Descartes' reply here is weak, for his appeal to a primitive notion of the union is rooted simply in our incontrovertible knowledge that mind and body are united and able to affect one another. But as Elisabeth reminds him, this was not the initial problem. She never denied an ability to experience the union of mind and body. Rather she (with us) still demands an understanding of how mind and body interact in properly mechanist terms.

In addition to the mind-body problem, Elisabeth and Descartes engage with the problem of free will later in the correspondence—in the letters from 30 September 1645 to January 1646. The problem as it arises in this context derives from a commitment to the two apparently contradic-

a defender, see Eileen O'Neill, "Mind-Body Interaction and Metaphysical Consistency: A Defense of Descartes," *Journal of the History of Philosophy* 25, no. 2 (1987): 227–45.

57. See Descartes to Elisabeth, 21 May 1643 and 28 June 1643.

58. Daniel Garber, in his "Understanding Interaction: What Descartes Should Have Told Elisabeth," *Southern Journal of Philosophy*, supp. 21 (1983): 15–37, argues that Descartes, though he did not, could have consistently responded to Elisabeth.

tory claims of (a) divine providence, or the view that God both has foreknowledge of all that will occur in the world and determines everything to happen in this way and is beneficent, wanting what is good for each creature,⁵⁹ and (b) human freedom. Descartes asserts a compatibilist position, or the view that human freedom is compatible with divine providence, but Elisabeth is at pains to see how this freedom, understood as a positive power to do otherwise, as Descartes seems to understand it, does not violate God's determination of human action. Elisabeth herself does not seem to reject the doctrine of freedom of will, though her Calvinist background might suggest she would. Rather she is seeking a truly viable compatibilist position.⁶⁰

In its contemporary version, the problem of free will aims to reconcile human freedom with physical determinism rather than divine providence. Neither Elisabeth nor Descartes is moved by the problem framed in this way, even though they do take the physical world to be deterministic. For them, the determinism of the physical world is explained by God's role in creating and sustaining that world.

Natural Philosophy and Medicine

Elisabeth's questions about mind-body interaction presuppose a commitment to a mechanist account of the natural world, a commitment shared by Descartes. Indeed, Descartes' metaphysics, seen in its intellectual and historical context, aims to set the mechanist science, which by the mid-seventeenth century had gained momentum, on a firm philosophical foundation.⁶¹ In this way, Cartesian philosophy was instrumental in the development of mechanism as a real alternative to Aristotelian accounts of the natural world.

While the positions of the late Scholastics had already begun to complicate the model, it is perhaps most helpful to begin to situate Descartes' view

59. In this correspondence, divine foreknowledge and divine beneficence seem to be conflated. Both within Scholastic philosophy and later with Leibniz these two divine attributes are distinguished and in turn generate very different metaphysical problems. Divine foreknowledge raises issues for our freedom understood as an ability to do otherwise. Divine beneficence raises issues about our freedom to act contrary to our good (or a problem of weakness of the will) as well as the problem of evil, the need to explain how things can happen in the world that do not seem in the least conducive to our good.

60. In her letters of 30 September 1645 and 28 October 1645.

61. "Mechanism" is not a univocal term. As J. E. Maguire points out:

It is obvious that the term "mechanical" meant many different things to thinkers of the seventeenth century: nature is governed by immutable geometric laws; contact action is the only mode of change; first principles are to be integrated with experimental investigations; regularities are to be explained in mathematical form; that all phenomena arise from matter in motion, or matter and motion; that compound bodies

against the standard Aristotelian one.⁶² On the Aristotelian view, particular substances, or things, in nature are hylomorphic combinations of matter and form. Matter, though composed of four elements (earth, air, fire, and water), is not in and of itself distinguishable into the variety of things found in nature. This inchoate matter is quite literally informed, or given shape, in being united with forms. The form of a thing serves to define it as the thing it is, or constitutes its nature. For Aristotle natural phenomena are to be explained in terms of four causes: material, efficient, formal, and final.⁶³ A house, though an artifact, provides a standard example for illustrating the explanatory role of each of these causes: the wood, straw, mud, or other materials that go into building the house are the material cause of the house; the workmen who build the house, and whose actions effect the house, are the efficient cause of the house; the blueprints, which determine the structure of the house, are the formal cause of the house; and the purpose of providing shelter is the final cause of the house. On the Aristotelian model, what is true of artifacts, such as houses, is also true of things in the natural world. Every thing in nature has a material, efficient, formal, and final cause: the material cause of quartz, say, is the matter (or proportion of the four elements) of the quartz; the efficient cause is the geological process that brings the quartz crystal into being; the formal cause is the crystal structure of the quartz; and the final cause is the purpose the quartz serves in the natural world. On this view, physical properties taken

are composed of vortices (Descartes), centers of force (Leibniz), or tiny bits of matter conceived as atoms or corpuscles; that changes in phenomena result from the way in which internal particles alter their configurations; that the "new science" conceives nature dynamically in terms of motion rather than statically in terms solely of the size and shape of internal particles; that occult qualities are to be banished from explanations which must be based on sensory experience in terms of clear and distinct ideas; or that nature is to be conceived in analogy to the operations of mechanical activities. . . . [W]hile they [mechanists] all agreed that contact action was a necessary condition for a mechanical explanation, there was no settled agreement as to sufficient conditions.

From "Boyle's Conception of Nature," *Journal of the History of Ideas* 33, no. 4 (1972): 523 n. 2. The discussion that follows here is greatly simplified. For a more full account of Descartes' place in the development of mechanism, see Daniel Garber, *Descartes' Metaphysical Physics* (Chicago: University of Chicago Press, 1992), and Alan Cabbey, "The Case of Mechanics: One Revolution or Many?" in *Reappraisals of the Scientific Revolution*, ed. David C. Lindberg and Robert S. Westman (Cambridge: Cambridge University Press, 1990), 493–528.

62. For a fuller, richer account of the complexity of late Scholasticism and its relation to Cartesianism, see Ariew, *Descartes and the Last Scholastics*, and Dennis Des Chene, *Physiologia: Natural Philosophy in Late Aristotelian and Cartesian Thought* (Ithaca: Cornell University Press, 1996).

63. See Aristotle, *Physics* 2.1–3 (192b–194b). For a helpful overview of Aristotle's philosophy, see J. L. Ackrill, *Aristotle the Philosopher* (Oxford: Oxford University Press, 1980); for a more detailed discussion see Sarah Waterlow, *Nature, Change and Agency in Aristotle's "Physics"* (Oxford: Oxford University Press, 1982).

to be essential to a particular sort of thing, for instance, magnetic affinity, are explained by appeal to the form or nature of the thing with those properties.

This account of the natural world came more and more under pressure with the observations of phenomena that were not easily subsumed under the Aristotelian system—most famously, those of Copernicus and Galileo. At the same time, the development of mechanical devices—some designed for practical purposes, such as assisting in construction or keeping time, others, such as hydraulic fountains, to serve a more ornamental function—provided a model for an alternative view of the workings of the natural world.⁶⁴ The world was conceived as working just like a machine. This alternative account came to be dubbed, appropriately enough, mechanist.

To understand what is distinctive about the mechanist model of nature it is useful to work through the metaphor of the world as machine. First, just as a machine is composed of parts that can be separated from one another, and even put together in a wide variety of ways, the world is conceived as composed of parts or atoms. These atoms then fit together in ways as varied as are the kinds of things in the world. Things are thus differentiated not by their form, conceived as something distinct from matter, but rather simply by the configuration of matter. Furthermore, the workings of a machine can be explained wholly in terms of efficient causes, without appeal to the machine's purpose or even its design. The motion of one part of the machine, say, a lead ball moving downward, effects a motion of another part of a machine, say, a rope moving around a pulley, which in turn effects the motion of another part of a machine, say, a plank of wood lifting, which in turn effects the motion of another part, and so on. We do not need to know the purpose of the machine to understand how it works. In a similar way, on the mechanist view, we are to understand the motion of one part of the matter composing the natural world (i.e., one atom or set of atoms) as effecting the motion of another part of matter, and so on. All physical phenomena, from the impact of one body on another, to plant life, to digestion, are to be accounted for by appeal to efficient causes alone. More specifically, a mechanist explanation of natural phenomena eschews both formal and final causes.⁶⁵ Since things in nature are composed wholly of matter, on the mechanist view there is no conceptual space for Aristotelian-style formal explanation. Final causal explanations, insofar as they involve an appeal to divine purposes in creating the world as it is, are not the proper province of philosophy, at least as far as Descartes is concerned.

64. See Dennis Des Chene, *Spirits and Clocks: Mechanism and Organism in Descartes* (Ithaca: Cornell University Press, 2001), for a good discussion of the development of machines.

65. Some, such as Gary Hatfield in "Descartes' Physiology and Its Relation to His Psychology," in *The Cambridge Companion to Descartes*, ed. John Cottingham (Cambridge: Cambridge University

The new mechanist model of scientific explanation faced several challenges. First, a mechanist needed to develop more fully the notion of efficient causation. Though a mechanist might well claim that natural phenomena are brought about by other natural phenomena, much more needed to be said about the mechanism through which they do so. And there was much debate about what the proper account of efficient causation should be. On one common view, causal efficacy consisted in the transfer of impulse from one thing to another, though there was some disagreement about what might be required for such impulse to be transmitted: Do the bodies need to be in contact? If so, is it sufficient that their surfaces touch, or do they need to fit more closely together? On another view, bodies were inert matter, and their causal role was to serve as an occasion for a third, intrinsically powerful, entity to bring about the effect.⁶⁶ Second, there were at least two phenomena that the Aristotelian model seemed to account for better: heaviness and magnetic attraction. A mechanist needed to offer an explanation of both these phenomena. And third, there was the problem of understanding human nature, and in particular accounting for the human capacity for thought and the immortality of the human soul in terms consistent with mechanism. As Elisabeth pointed out to Descartes, it was a somewhat ad hoc solution to fall back into Aristotelianism in the case of the human being.

Descartes' mechanism was already well documented in his published works. In parts 5 and 6 of the *Discourse on the Method*, Descartes lays out a mechanist account of the beating of the heart and extends a call for research into the new science. In two of the accompanying essays, *Optics* and *Meteorology*, he begins the project of offering mechanist accounts of vision and of select natural phenomena. In the third essay, *Geometry*, he illustrates his method of solving problems using algebraic geometry, a method that was supposed to bear fruit in understanding the geometrical structure of the material world. Descartes' dualism, in particular, his insistence that the mind is an immaterial substance, can be understood as a strategy for addressing the mechanist problem of understanding human nature.

Elisabeth's initial questions to Descartes about mind-body interaction reflect that she too is committed to the new mechanism. The accounts of causation she adverts to are all positions defended by those who endorse

Press, 1992), 335–70. have argued that conceiving the world as a machine in and of itself does not preclude formal causal explanations, though conceiving of natural phenomena as explainable by parts of matter in motion does do so.

66. For a good overview of the discussion, see Kenneth Clatterbaugh, *The Causation Debate in Modern Philosophy, 1637–1739* (New York: Routledge, 1999); and the essays in Steven Nadler, ed., *Causation in Early Modern Philosophy* (University Park: Pennsylvania State University Press, 1993).

the new science, and she is unwilling to admit a species of formal causation to explain the way mind can move the body. Moreover, she suggests to him that mind, or the capacity for thought, might well be best understood as the motion of matter of a particular sort. In understanding mind as material in this way, a mechanist would be able to account straightforwardly for intentional action and sensation by appeal to the same notion of causation that explains other natural phenomena.

Both Descartes and Elisabeth also reveal their mechanist commitments in the brief discussion of Descartes' *Principles*, as well as in that concerning the physiology of the passions.⁶⁷ As noted above, in parts 2–4 of the *Principles*, Descartes develops his mechanist physics, not only justifying the theoretical framework of the laws of nature and rules of impact governing the motion of bodies, but also explaining a range of physical phenomena within that framework. In her response to his dedication of the *Principles* to her, Elisabeth focuses on the explanations of magnetism and the density of mercury, and while she raises objections to these accounts, her worries are about the details and presuppose that she accepts the basic framework in which they are offered. The same is true of the discussion of the physiology of the passions. Descartes' account is thoroughly mechanistic, and Elisabeth's objections are not to this framework of explanation but rather to the plausibility of the details of the motions of the animals' spirits that the explanation involves.

In addition, this correspondence offers us insight into mechanist medicine. While works such as the *Discourse on the Method* and, later, parts of the *Passions of the Soul* and the posthumously published *Treatise of Man* present Descartes' mechanist physiology, in this correspondence we can get a glimpse of how that physiology gets translated into a therapeutics. In 1644 and 1645 Elisabeth seems to have been quite ill, and she turns to Descartes for counsel. Her own physicians subscribed to the Galenic medicine of the Schools, aiming to rebalance the four humors—blood or the sanguine humor, phlegm or the sluggish humor, black bile or the melancholic humor, and yellow bile or the choleric humor—in the body. They prescribed remedies, or taking the waters at Spa, or bloodletting, but they could explain how these prescriptions caused the illness to abate only by appeal to formal causes, the nature of the humors. Descartes counsels Elisabeth to follow some of the doctors' recommendations and suggests his own prescription of diet and exercise, and his advice does retain a certain aspect of the Galenic

67. See Elisabeth to Descartes, 1 August 1644 and 25 April 1646, and Descartes to Elisabeth, August 1644, 6 October 1645, and May 1646 (A).

system. Just like Galenic medicine, mechanist therapeutics models the body as a hydraulic system. However, Descartes' mechanist model differs from the Galenic model in that the fluids of the body are all of one kind of matter—the only kind—and the parts of the blood are distinguished only by their size. Moreover, the health of the body requires that the matter constituting the blood, in particular the animal spirits, move in such a way that the body will maintain itself. Our health and the cure for illness are to be explained according to the same laws and rules of motion governing all bodies in nature, that is, simply in terms of efficient causation.

Moral Psychology

The insights into mechanist medicine in the correspondence come not as a result of a theoretical discussion but rather in the very real context of Elisabeth's illness. While Descartes' prescriptions are consistent with mechanist principles, he diagnoses Elisabeth as suffering the ill effects of a disorder of the passions. This intersection of medicine and moral psychology reflects well the seventeenth-century context. In the early seventeenth century, the passions figured in two different sorts of intellectual pursuits. Medical writings concerned with therapeutics reserved a place for the disorders of the passions—excessive sadness or melancholy and lovesickness were two favorites—and typically offered an assortment of remedies, ranging from dietary recommendations and exercise to specific herbal prescriptions.⁶⁸ In parallel, the early seventeenth century also found a renewed interest in Stoic moral philosophy, which generated a breed of moralists who argued for the elimination of the passions.⁶⁹ With Descartes' diagnosis of Elisabeth, and in the discussion that follows, we can see the intersection and balancing of these two approaches to the passions.

Neither Descartes nor Elisabeth is wholly aligned with the neo-Stoic moralists, for neither wants to do away with the passions altogether. Descartes certainly acknowledges the reasonableness of what is probably best described as Elisabeth's depression, for he admits that the pressures of exile and money problems, as well as of other family and political misfortunes, can well take their toll.⁷⁰ And Elisabeth, for her part, asserts the legitimacy

of her own feelings against Descartes' oversimplification of her troubles.⁷¹ Nonetheless, the problem of the regulation of the passions lies at the heart of their discussion. While, as Descartes comes to maintain in the *Passions of the Soul*, the passions are in their nature good, they do often misrepresent the value of things, making them seem better or worse than they actually are. The task is to feel things to the appropriate degree.

The model of the regulation of the passions we are given in this correspondence is at heart a cognitive one. The passions represent the value of things to us, and the regulation of excessive or disordered passions involves our reassessing those evaluations. While at the outset of this portion of the correspondence, Descartes seems to think that this reevaluation is simply a matter of directing our attention to the reasons to see things differently, the view is refined to meet Elisabeth's concerns. For, she points out, keeping our attention focused on the reason to think otherwise is not as easy as it might seem. I may well know that I ought to feel joy at the philosophical conversations I am able to engage in, and so not feel the despair I do at my family's fortunes, but that awareness of reasons for joy does not entail that I will be able to see my family situation in proper relation to the other parts of my life. While both acknowledge that there is a cognitive dimension to the passions, they also come to acknowledge that the passions have a staying power that other thoughts need not have. Part of the explanation for this sort of intransigence of the passions lies in a lack of complete understanding of the relative value of things, but that cannot be all. We often have difficulty properly assessing the value of things precisely because our passions come with a bodily affect that hinders our seeing things otherwise than the way we do. Regulating the passions thus involves also regulating their bodily aspect. It is here that the tie with medicine comes in. For through medicine we can temper the bodily motions sustaining our disordered passions and so achieve a physical calm that facilitates our turning our attention to other thoughts.

These discussions of human moral psychology complicate the Cartesian account of the workings of the mind and of reasoning. Most of our thoughts, like our passions, are caused by our bodily states.⁷² While we can consider the reasons that argue against the excesses of our passionate evaluations, those reasons can gain sway only if the physiological force keeping those passions before our mind subsides. However, our considering reasons to feel otherwise than we do is not without its own physiological affect. In entertaining countervailing thoughts, we affect the physiological forces at

71. See Elisabeth to Descartes, 24 May 1645.

72. Our sensations are also caused by bodily states. For Descartes, we do have purely intellectual ideas, caused by the mind alone. They include our idea of ourselves as thinking things, the idea

68. See, for instance, Robert Burton, *The Anatomy of Melancholy* (Oxford: Henry Cripps, 1628); Nicholas Abraham de La Framboisière, *Oeuvres* (Lyon: Jean Antoine Huguetan, 1644), in particular *Le Gouvernement nécessaire à chacun pour vivre longuement en santé*. La Framboisière's works were first published in 1613.

69. Guillaume Du Vair was the most prominent of these moralists. See his *De la sainte philosophie* and *La philosophie morale des Stoïques* in his *Oeuvres* (Lyon: B. Nugo, 1641; rpt., Geneva: Slatkine, 1970).

70. See Descartes to Elisabeth, 18 May 1645, in which he distances himself from "those cruel philosophers who want their sage to be insensible."

work in our body, and with sustained attention the excesses of the passions can be tempered. The goal of the regulation of the passions here is thus not for reason to triumph over the passions but rather for our reasoning to restore a proper balance both to our physiological feelings and to the order of our thoughts. Indeed, reason is not dispassionate on this view but rather a matter of feeling things appropriately.

Regulating the passions effectively involves, as Elisabeth puts it, "know[ing] exactly all the passions we feel,"⁷³ that is, having a catalogue of the ways in which things are important to us, and equally, of the physiology particular to each of these passions. In charging Descartes to define the passions in this way, Elisabeth insists that Descartes follow his own method in this investigation of the passions. In following her charge, Descartes drafts the treatise that will form the *Passions of the Soul*.

Ethics

It is appropriate that the correspondence moves from a discussion of the regulation of the passions to a consideration of one of the central questions of ethics: the nature of the sovereign good. The discussion is framed as a distraction for Elisabeth—it comes out of a reading of Seneca's *De vita beata*. However, in order to regulate the passions properly, we need to have a proper sense of the value of things, which, for Descartes, comes along with clarity about the highest good.

Philosophical discussions of the sovereign good typically engage with two issues: the nature of the sovereign good and its relation to happiness. For Descartes, the sovereign good consists simply in virtue, which he defines as having "a firm and constant will to execute all that we judge to be the best and to employ all the force of our understanding to judge well."⁷⁴ Some philosophers would maintain that the sovereign good is just human happiness, though it would still remain to spell out an account of happiness. For Descartes, while the sovereign good is certainly necessary for happiness, which is for him a true contentment or satisfaction of mind, it is not identical with it. At times, Descartes does suggest that achieving the sovereign good is also sufficient for happiness—that we cannot fail to be happy if we achieve virtue⁷⁵—but nonetheless he insists that striving for virtue and striving for

of God, the idea of body or extended substance, as well as other innate ideas. Some ideas, such as what he calls the intellectual passions, may not fit so clearly into this framework of analysis.

73. Elisabeth to Descartes, 30 September 1645.

74. Descartes to Elisabeth, 18 August 1645.

75. See, for instance, Descartes to Elisabeth, 4 August 1645.

contentment of mind are two different aims, though they may well achieve the same result.

For Descartes, virtue is a form of self-perfection. On his view, we are virtuous just in proportion to our own self-mastery. We are able to achieve self-mastery through self-understanding and a determination to act in accord with that understanding. In understanding ourselves and our place in nature as a whole, we also understand the proper value of things. Thereby we not only reason well about what we should do but also determine ourselves to act in accordance with that understanding. This clear perception of value, along with a resoluteness of will, results in the tempering of the passions and the dispositions to act well.

Descartes' account of virtue is somewhat peculiar, as Elisabeth herself remarks. For, on his view, to be virtuous we do not need the cooperation of fortune. While being well-born may afford one material goods that make achieving virtue easier, having that good fortune is not essential to virtue in any way. To be virtuous one simply needs to judge well and to be resolute in acting on those judgments. In a similar way, judging well need not involve judging correctly about what will come to pass as a result of one's actions. Rather, judging well, on Descartes' view, is a matter of reasoning well about what is to be done, given the information available, limited though it may be, and given the limited time one has available to make a decision. This view thus would seem to have the rather odd consequence that one can be virtuous even though one acts in a way that turns out to be bad. Part of this consequence might be avoided if the Cartesian account of virtue placed moral weight on an agent's understanding of the situation, but the view still places self-mastery at the center of virtue and the sovereign good.

That Descartes conceives of the sovereign good in this perfectionist way, and focuses in particular on the role of this good in regulating the passions, marks this discussion as one in virtue ethics. As noted earlier, Descartes figures in the revival of Stoicism in the seventeenth century, and his virtue ethics approach makes that connection tighter. Beginning with the more scholarly Justus Lipsius, Stoic moral philosophy provided inspiration for an alternative to the natural law tradition that dominated the Schools.⁷⁶ While the natural law tradition founded morality on divine prescription, a command external to the agent, the neo-Stoics sought to ground morality in human reason, demands deriving from the nature of the agent. Descartes' position is also to be distinguished from the emerging contractarian model,

76. Justus Lipsius (1547–1606). His most influential works were *De Constantia* (1584) and *Physiologia Stoicorum* (1604). His *Manductio ad Stoicam Philosophiam* (1604) provided an overview of

most famously developed by Hobbes in his *Leviathan*,⁷⁷ which grounds morality in the agreements forged by individuals in their efforts at self-preservation. The Hobbesian framework has provided the basis for contemporary rational choice theory. For Hobbes, a self-interested agent will choose to enter into a contract with another self-interested agent, thereby constraining his ability to act in some way, just when each agent recognizes that doing so is in his interest.

Within contemporary philosophy, virtue ethics is distinguished from deontological ethics and consequentialism. Deontologists explain why a particular action is good by appeal to duties or rules of morality. Consequentialists focus on the outcomes of actions, explaining why it is good to act in a particular way, say, to help a stranger in need, by appeal to the degree to which the outcomes promote human well-being. Contractarian ethics is, in a certain sense, a species of consequentialism. For it understands self-interested agents to choose to cooperate or contract with one another based on the outcome of that cooperation. Insofar as these contractual arrangements fix what is good or bad, the contractarian model roots value in outcomes of actions. Virtue ethicists, on the other hand, appeal to character and dispositions to act, along with the reasons for which an agent will act: a virtuous person has the character that disposes her to act in the right way for the right reasons. For Descartes, the outcomes of our actions bear little relation to whether we have acted well. Indeed, he maintains that we can be virtuous even when we prove to be mistaken in doing what we did, so long as our intentions were well-founded. Similarly, he systematically avoids offering any rules or duties that circumscribe morality. The maxims he offers are simply reminders that we must strive to cultivate within ourselves a virtuous character: to reason carefully about what is to be done, to be resolute in acting in accordance with reason, and to distinguish what is within one's power from what is not.⁷⁸

That Descartes presents a virtue ethics in this correspondence can seem somewhat surprising. In part 3 of his *Discourse on the Method*, Descartes puts forward a *morale par provision* of "just three or four maxims"⁷⁹ in which he seems to conceive of morality as the following of a set of rules: we act well just insofar as we follow those maxims of morality in our actions. The

Stoic thought. Guillaume Du Vair (see above, note 69) and Pierre Charron were also important figures in this movement. For further insight see Anthony Levi, *French Moralists: The Theory of the Passions, 1585–1649* (Oxford: Clarendon Press, 1964).

77. Thomas Hobbes, *Leviathan* (London: Andrew Crooke, 1651).

78. Descartes to Elisabeth, 4 August 1645.

79. See AT 6:22–23, CSM 1:122–23.

maxims Descartes offers here do echo those of the *Discourse on the Method*, but his focus has shifted. He is concerned here less with the importance of following them as rules and more with the conception of the human good they contain. We might well understand Descartes here to be clarifying for himself in just what way morals follow from metaphysics and physics as suggested by the metaphor of the tree of philosophy in the *Principles*.

Descartes' individualist account of the sovereign good, and in particular his lending primacy to self-mastery in his account of virtue, invites questions about how each individual relates to other individuals and about how each individual is to measure her own good in relation to that of others.

Descartes and Elisabeth address the question of how the individual relates to the community of which she is a part in conjunction with their extended exchange on the regulation of the passions. Regulating the passions requires the proper evaluation of the value of things to us, and so the question of the appropriate measure of value naturally arises. One might well subscribe to an individualist account of value, that is, one that would have things be more or less valuable to the degree to which they benefit or harm each of us individually. Such an account could seem to fit with Descartes' account of virtue as self-mastery. However, one might also have a more tempered individualism. On this view, Descartes' own, I am not to measure what is beneficial to me in isolation from my relations to others. Rather, in assigning things their proper value, I must understand that

even though each of us is a separate person from others and, by consequence, with interests that are in some manner distinct from those of the rest of the world, . . . one does not know how to subsist alone and . . . is, in effect, one part of the universe and, more particularly even, one part of this earth, one part of this state, and this society, and this family, to which one is joined by his home, by his oath, by his birth.⁸⁰

Value for Descartes thus has a social if not a political dimension.

Political Philosophy

Political philosophy is centrally concerned with matters of the public good, including the question of how to govern well, as well as with the more general question of how individuals are, and ought to be, related to others through institutions of various kinds. Elisabeth directs Descartes to turn his attention away from the private matter of regulating the passions and guiding individual actions and to those of public life: "Since you have already

80. Descartes to Elisabeth, 15 September 1645.

told me the principal maxims concerning private life, I will content myself with now hearing those concerning civil life."⁸¹ The view we receive from both is filtered through a reading of Machiavelli's *The Prince*.

Machiavelli's work, written in 1513 but first published in 1532, aims to lay out a set of strategies to secure and maintain political power. In focusing on political power, Machiavelli effectively separates political theory from ethics, and in particular from notions of right and wrong, just and unjust action. Descartes and Elisabeth do not address this particular methodological move directly, however. Rather, at the center of their discussion is a disagreement about the proper framework in which to lay out maxims for governing well. Descartes takes *The Prince* to be flawed methodologically, insofar as it presupposes that the prince has usurped power and offers guidelines for governing well under those conditions. Descartes asserts that the proper maxims for governing follow rather from considering a good ruler who has arrived in power through just means. Elisabeth, on the other hand, appreciates the methodology of *The Prince* insofar as it confronts directly the difficulties of governing by considering the hardest case. She does, however, find fault with the brutality of some of Machiavelli's implicit recommendations. Elisabeth's interest in political philosophy is driven by the real pragmatic considerations of her own family's position.

ELISABETH AS PHILOSOPHER

With a clear view of the philosophical issues in place, I now turn to consider Elisabeth's own philosophical position. Doing so is unavoidably speculative. As noted earlier, these letters are all we have of her philosophical writings. Adducing her views involves a close and sympathetic reading, one that of necessity must attend to other historical clues. Additional research on the intellectual historical context might well influence how we choose to read Elisabeth's remarks.

Natural Science and Mathematics

Before elucidating Elisabeth's own philosophical commitments, it is worth remarking on the high degree of both her interest and her competence in natural science and mathematics. That she was so engaged controverts many assumptions about women's place within natural philosophy and helps to chart a history of women scientists. Before her, Moderata Fonte, in *The Worth of Women*, devotes the second half of the work to an extensive exploration

81. Elisabeth to Descartes, 25 April 1646.

of natural history.⁸² After her, we see Margaret Cavendish and Emilie du Châtelet and others fully engaged in scientific enterprise.⁸³

While Elisabeth is perhaps best known for her challenges to the consistency of Descartes' dualist metaphysics and account of human nature, to which I shall turn in more detail presently, those challenges are grounded in a clear grasp of a range of accounts of causation. As noted above, the way Elisabeth frames her question reveals two things. First, she demonstrates a keen interest in alternatives to Aristotelian philosophy, and in particular the new mechanist science. Second, she shows herself to be more than a mere disciple, keeping well abreast of the debates on the proper account of causation in a natural world described mechanistically. For she entertains three different possible accounts of causal interaction—causation by transfer of impulse, causation by the manner of contact of cause and effect, and causation by the conformity of the surfaces of cause and effect—and argues that none can do the work required to explain the way the soul, an immaterial thing, can move the body. This interest in natural philosophy is not isolated; it permeates her letters to Descartes. Equally, she demonstrates herself to be quite a talented mathematician.

Shortly, after her initial exchange with Descartes, they turn their attention to mathematics, and in particular to the new method of algebraic geometry pioneered by Descartes. Descartes sets Elisabeth the problem of the three circles, or Apollonius's problem, to solve. The problem assumes three circles on a plane and requires one to find a fourth that touches each of the given circles.⁸⁴ Though Descartes worries that he has assigned Elisabeth too difficult a problem, she provides a solution with an elegance that clearly surprises Descartes. While Elisabeth's solution no longer exists, we do have Descartes' comments on it.

From those comments, we learn, first, that Elisabeth used algebraic geometry to try to arrive at a general solution—a theorem. She thus demonstrated

82. Moderata Fonte, *The Worth of Women*, ed. and trans. Virginia Cox (Chicago: University of Chicago Press, 1997).

83. See, for instance, Margaret Cavendish, *Observations upon Experimental Philosophy*, ed. Eileen O'Neill, (Cambridge: Cambridge University Press, 2001). Emilie du Châtelet (1706–49) was an accomplished mathematician, published *Institutions de la physique* (1740), and translated Newton's *Principia* into French and introduced the work. See also Londa Schiebinger, *The Mind Has No Sex? Women in the Origins of Modern Science* (Cambridge: Harvard University Press, 1989).

84. Pappus, in his *Collection* 7.11, mentions the problem and attributes it to Apollonius but does not give his solution, which was to be effected with ruler and compass. The first known solution to the problem using this method was by François Viète in 1600. Thus, in 1643, the problem was well known, and recognized to be difficult. No algebraic solution had been published.

a very advanced mathematical skill, as algebraic geometry was a relatively new technique. Moreover, Elisabeth's approach to the problem differed from Descartes' own, and significantly, her strategy seems to have had a symmetry and a transparency that Descartes' lacked. Descartes uses three unknowns, chosen not because they are intuitive but so he can avail himself of the Pythagorean theorem, and then substitution equations, to show that one can arrive at a second-degree equation for a single remaining unknown variable. Descartes does not perform the "laborious calculations," but his success in showing that there is a second-degree equation solution also demonstrates that there is a rule and compass solution to the problem.⁸⁵ Practically speaking, however, Descartes' solution would not help very much in arriving at an actual solution to Apollonius's problem. The equation one would arrive at if one did the substitutions would be difficult to translate into an actual construction. Elisabeth, on the other hand, used only one unknown in her solution to the problem—the radius of the tangent circle to be found. Her choice of unknown thus preserved the original problem and so left the structure of the solution transparent. She aimed to express this unknown in terms of the radii of the three given circles and sides of the triangle formed by the centers of the three circles. Like Descartes, she ended up with computational difficulties and so did not succeed in arriving at a theorem solution. Descartes, in his initial letter, before he has seen Elisabeth's solution, explains that he chose to use several unknowns in part to simplify the algebra involved. Elisabeth's solution, using only one variable, did prove to be dauntingly complicated. However, her choice of fixed quantities, and in particular the sides of the triangle formed by the centers of the three circles, had been dismissed by him. In working through Elisabeth's solution, then, Descartes seems to learn something about algebraic geometry.⁸⁶

That Descartes, as well as others, recognized Elisabeth as an accomplished mathematician is also evidenced by her advocacy of the appointment of Frans van Schooten to the faculty of mathematics at the University of Leiden. Her support was a favor to Descartes, but she was clearly in contact with the mathematicians on whom van Schooten's appointment turned.⁸⁷ In addition, later in Elisabeth's life, the English mathematician John Pell, having come across these letters concerning the problem of the three circles, wrote to Elisabeth asking to see her solution. While Elisabeth refused this request

85. Descartes had shown in his *Geometry* how to derive rule-and-compass solutions from second-degree equations. See AT 6:374–76.

86. For an excellent discussion of this exchange, from which this account has benefited, see Descartes, *Correspondence of René Descartes 1643*, appendix 3.

87. See Elisabeth to Descartes, 27 December 1645.

on the grounds that all one needed to know in order to do what she had done was a little geometry and algebra, it is clear that Pell held her in high regard as a mathematician and proponent of Cartesian science.⁸⁸

Elisabeth's interest in natural philosophy, and in particular physics and medicine, is also evidenced throughout her correspondence with Descartes. As remarked upon earlier, in her response to his dedication to her of his *Principles of Philosophy*, Elisabeth focuses her attention not on his metaphysics but on the plausibility and consistency of his accounts of magnetic attraction and of the heaviness of mercury. She also shows herself to be keeping abreast of developments in the sciences in the English-speaking world. She offers a pointed criticism of Kenelm Digby's objections to Cartesian philosophy, taking him to task for not properly understanding Descartes' account of collisions, and offers to have Digby's work translated so that Descartes may engage with it himself.⁸⁹ In her stay in Germany, she aims to circulate and discuss Descartes' *Principles*, though she has a hard time finding scholars willing to entertain this new physics. That she is so starved for people with whom to discuss the new science is evidenced by her glee at finding one person to discuss things with, only to be frustrated by his reticence, as well as by her impatience as she awaits the arrival of copies of the latest books by the likes of Hogelande and Regius. In their correspondence of 1645–46 regarding the passions, Elisabeth shows her interest in medicine, and in particular the explanation for the action of remedies for various illnesses. In her letter of 25 April 1646, she asks Descartes for a fuller account of the physiological causes of the passions, skeptical of what seems to be invention on his part.

This interest in causes of natural phenomena, along with a keen faculty of observation of the phenomena themselves, runs through the letters she writes Descartes from her stay with her aunt at Crossen. There she gathers information about the curative powers of the spring at Hornhausen, striving to find the proper explanation of these powers. She equally observes the way her party comes down with a feverish rash after a walk in the woods, an infestation of mosquitoes, and the medical treatment she herself receives for abscesses and impetigo. Though we do get more observation of natural phenomena than a detailed explanation, it is important to see here that

88. British Library, additional MSS 4365, f. 198 and 196. Thanks very much to Carol Pal for drawing these letters to my attention (see above, note 30). The intermediary for this exchange was Theodore Haak, and interestingly, Elisabeth's response to Pell's request is directed to a M. More, presumably Henry More, who had requested copies of Descartes' letters as well as her own solution.

89. See Elisabeth to Descartes, 24 May 1645.

Elisabeth's interest was not merely that of a natural historian. She records occurrences that are new or unusual, taking care to identify the details demanding an explanation. She is careful to record the common wisdom regarding these natural phenomena, and the common wisdom more often than not appeals to superstition or mere dogmatic assertion.

Throughout these letters Elisabeth not only shows herself to be keeping abreast of the latest scientific literature but also demonstrates a real scientific curiosity. While she is an astute observer of natural phenomena, she wants a proper mechanistic causal explanation for what she observes and experiences. The standard Scholastic explanations do not satisfy her, for they either appeal to superstition or are so particular to the circumstance that they do not allow for any generalization from that experience. Elisabeth is seeking an explanation of a particular phenomenon that can shed light on other phenomena as well. The generality of mechanism, and of Cartesian physics in particular, satisfies this demand. It provides a theoretical framework through which the whole of nature can be explained.

Metaphysics

This overriding concern that one theoretical framework be able to explain the whole of nature can be seen as driving Elisabeth's metaphysical position as well.⁹⁰ As discussed above, Elisabeth was the first to pose the mind-body problem in questioning whether Descartes' dualism afforded an explanation of the ability of mind and body to causally interact with one another. Although Elisabeth poses the problem in its interactionist form, her interests extend beyond a simple concern about how two distinct substances can causally interact. At the heart of her objection is a commitment to mechanism. This commitment leads her to try to develop an account of mind—of human capacity for reason and reflection—that is materialist, thereby allowing for an efficient causal explanation of the way our thoughts and bodily states move one another, and that also respects the intuition that we have autonomy of thought.

Her commitment to mechanism emerges in her very first letter to Descartes, for, as noted earlier, there she is concerned that mechanism does not have the theoretical apparatus to account for the way an immaterial thing may move a material thing. Mechanists might not have settled on an account of causation, but they are in agreement that causal efficacy, no matter

how it is explained, requires the properties only a material thing possesses: either being extended or having a surface. As the discussion continues, the commitment becomes clearer. Whereas Descartes is willing to entertain a species of formal causation to explain the interaction of mind and body, Elisabeth squarely rejects the idea that the Scholastic notion of a real quality demonstrates the kind of causation in play in the case of the human being. It is important to her that any causal explanation be a mechanistic one, and on the mechanist models of efficient causation both cause and effect are material.

Given her commitment to mechanist causal explanation, Elisabeth would have it that mind is just as material as body. While she does not initially state this position strongly, she does begin to intimate that perhaps mind and body are not such distinct substances as Descartes makes them out to be in his *Meditations*. She writes in her letter of 6 May 1643: "This is why I ask you for a more precise definition of the soul than the one you give in your *Metaphysics*, that is to say, of its substance separate from its action, that is, from thought." It is clear that she wants to revisit the question of how mind and body are supposed to be two really distinct things, and in particular that of what constitutes the mind as substance, in order to arrive at an account of the interaction of mind and body consistent with mechanism. In the letters that follow, Elisabeth articulates her inclinations toward a materialist account of mind more clearly. In her letter of 10 June 1643, responding to Descartes' invocation of the Scholastic account of heaviness, she admits, "it would be easier for me to concede matter and extension to the soul than to concede the capacity to move a body and to be moved by it to an immaterial thing," and she also invokes real cases to help motivate this materialist position, independently of the issue about causation. In these cases, people who would otherwise have full use of their faculty of reason fall physically ill and thereby lose the ability to think clearly. Perhaps they become delusional, or are muddle-headed, or in some other way lose the capacity to see things as they are or to draw inferences properly. Elisabeth does not see how a substance dualist like Descartes could accommodate these sorts of phenomena. For it would appear, on a strong dualist line, that even if we do have a physical illness, we should still in principle be able to think clearly: the soul, after all, on that line, is able to subsist completely independently of the body, and so it should be able to exercise its power of thought no matter what the condition of the body in which it finds itself. Elisabeth's thought is that this principle of independent subsistence is belied by the phenomena.

Nonetheless, though Elisabeth does want to defend a materialist notion of mind, she is still sympathetic to the intuition behind Descartes' substance

90. Much of the discussion of this section derives from my "Princess Elisabeth and Descartes: The Union of Soul and Body and the Practice of Philosophy," *British Journal for the History of Philosophy* 7, no. 3 (1999): 503–20.

dualism—that thought is not a mere matter of bodily motions and cannot be reduced to them. A remark in her 1 July 1643 letter suggests something like this: "Though extension is not necessary to thought, neither is it at all repugnant to it, and so it could be suited to some other function of the soul which is no less essential to it." I take her here to be suggesting that the capacity of thought might be perfectly consistent with extension, even though we can still distinguish thinking from the other actions of extended things. This suggestion goes undeveloped in the 1643 correspondence, but later in the correspondence, in the early summer of 1645, in an exchange regarding the regulation of the passions, she develops it a bit more.

There, recall, Descartes and Elisabeth discuss her persistent illness, which Descartes diagnoses as a disorder of the passions. He prescribes for Elisabeth a typically neo-Stoic remedy—simply to attend to her thoughts and to focus on those that bring her happiness, while ignoring those that prove upsetting. Elisabeth's response here is not clearly philosophical but is rather quite personal, expressing her frustration at her illness, her situation, and Descartes' own oversimplification of her situation with his psychological advice. She appeals to the "weaknesses of my sex" to explain her own inability to turn her attention away from what troubles her. On its face, it seems that either she has internalized a kind of sexism or that she sounds a note of irony to bring out a certain sexism on Descartes' part. A further examination of her remarks, however, reveals a philosophical commitment related to the earlier discussion of the nature of the mind.

On the reading that takes her to have internalized a kind of sexism, Elisabeth seems to maintain that women are so closely tied to their bodies that they are subject to them, and thereby incapable, in virtue of their sex alone, of becoming fully rational. Thus, Elisabeth seems to be admitting that in principle we can regulate our bodily disposition just by using our faculty of reason, by thinking thoughts other than those we find ourselves having. She just denies that she, as a woman, is able to do so. But in making this admission, she is also implicitly accepting an aspect of Descartes' philosophical position. For she is admitting that the soul has a sort of autonomy from the body: it can engage in a certain kind of activity that allows it to maintain control over its own thoughts. She simply wants to deny that her mind is fully autonomous, that she has that kind of control: she suggests that her bodily condition—simply being female—deprives it of that freedom.

On the reading that takes her as sounding a note of irony, we must also take Elisabeth to be assuming the same autonomy of mind. Here, Elisabeth's invocation of the weakness of her sex is meant to bring Descartes' own as-

sumptions to the surface—his diagnosis is colored by the fact that she is a woman and that his remedy seems to require that she deny she is a woman and be more like a man—for she is pointing out that she cannot help but be female. Her assertion in her letter of 24 May 1645 that

if my life were entirely known to you, I think the fact that a sensitive mind, such as my own, has conserved itself for so long amidst so many difficulties in a body so weak, with no counsel but that of her own reason and with no consolation but that of her own conscience, would seem more strange to you than the causes of this present malady

would certainly seem pointedly to deflate Descartes' pop psychology while demonstrating her own strength. But here too she is both accepting the principle of the autonomy of the mind—the view that one has control over one's thoughts—and insisting that this power of thought is in some way contingent on our bodily state. While on this reading Elisabeth is maintaining that she does have her full faculty of thought, she still notes that this very fact is surprising. Her poor health and weak condition might well have obscured or otherwise impeded her ability to reason.

Within this personal response, then, and no matter which interpretation we favor, Elisabeth is seen as subscribing to a certain position on the nature of mind. On this position, the mind is autonomous: it has its own proper activity—thought—that allows us power over what we think. If we find ourselves with troubling thoughts, we need not dwell on them: we can think of other things. But Elisabeth also wants to maintain that this autonomy of mind is in a very important way dependent on the condition of the body.

This position is further articulated a little later in this part of the correspondence. In her letter of 16 August 1645, Elisabeth finally asserts her view. She writes, in raising an objection to Descartes' account of virtue as simply a matter of willing well:

I do not yet know how to rid myself of the doubt that one can arrive at the true happiness of which you speak without the assistance of that which does not depend absolutely on the will. For there are diseases that destroy altogether the power of reasoning and by consequence that of enjoying a satisfaction of reason. There are others that diminish the force of reason and prevent one from following the maxims that good sense would have forged and that make the most moderate man subject to being carried away by his passions and less capable of disentangling himself from the accidents of fortune requiring a prompt resolution.

Here she claims both that our faculty of reason essentially involves a kind of control over our thoughts and that our physical condition can affect that faculty.

The perspective of the later letters helps to bring out the view underlying her original questions to Descartes in her letters of 1643. In this correspondence of the summer of 1645, Elisabeth points out that reason is intimately tied to our bodily condition: in order to think properly, we need to be in a state of good health. That is, while thought itself is an activity through which the mind demonstrates its essential autonomy from the body—through the mind alone we determine our thoughts—still our capacity to engage in this activity, our rational faculty, depends on our being in a certain state physiologically. In making this sort of claim about the relation between mind and body, Elisabeth need not take up a reductionist materialist position; she need not claim that all our thoughts are just bodily states and so maintain that our thoughts are essentially beyond our control, determined by the laws of nature. That our being in a certain sort of bodily state enables us to achieve rationality in this way need not compromise the *autonomy* of thought—the activity of thought—from the body. But in insisting that *we* determine our thoughts, neither need Elisabeth be committed to the kind of substance dualism that Descartes appears to espouse. For maintaining that thought is an autonomous activity does not require us to claim that it is an independent *substance*, we need not think of thought as an *entity capable of subsisting in itself*, suspended separate from body. Elisabeth's metaphysical insight, I take it, is to draw this distinction between autonomy and the sort of independence that makes something a substance.

Ethics and Political Philosophy

In the letters of 1645 and following, Elisabeth and Descartes move from considerations of the regulation of the passions to discussions of the sovereign good and even dabble in political philosophy. As noted above, in these letters we find most of Descartes' developed thought on ethics. My focus now, however, is not Cartesian ethics. Rather, I want to look closely at Elisabeth's objections (for here too she persistently raises objections) to Descartes' position in order to gain insight into her moral philosophy. We can discern three distinct points in what Elisabeth writes. The first two demonstrate that, theoretically, Elisabeth has sympathies with a virtue ethical framework for thinking about the good. However, given that our knowledge is incomplete, she is pessimistic that a virtue ethics can actually work to resolve differences. In light of this skepticism, we can read her alternatively as her searching for an ethics that might well foreshadow Thomas Hobbes',

as well as contemporary Hobbesian, contractarian accounts. To draw out Elisabeth's view, I shall focus on the letters from 21 July to 20 October 1645, though I shall draw insight from her other letters as well. After clarifying Elisabeth's objections I shall consider whether she is best read as simply raising objections in the spirit of furthering philosophical discussion or as endorsing a substantive philosophical position.

As this part of their exchange begins, Elisabeth, though she agrees with Descartes' tepid assessment of Seneca, is immediately skeptical about the view Descartes himself puts forward. In her letter of 16 August 1645 she writes, with her typical understatement, "I do not yet know how to rid myself of the doubt that one can arrive at the true happiness of which you speak without the assistance of that which does not depend absolutely on the will." Her objection cuts at two points, though she does not distinguish them explicitly. Most clearly, unlike Descartes, she takes our contentment to depend on something more than what is in our power. In her view, if we turn out to have been mistaken in the reasoning that led us to undertake the actions we did, we will regret both our error and our action, and so fail to be content. Thus, she objects that while Descartes is right to think virtue is necessary for contentment, he is wrong to think it is sufficient. In order to be virtuous, we need good fortune.

Elisabeth here seems to be aligning herself with the standard Aristotelian account of virtue. On the Aristotelian line, an agent is virtuous insofar as her actions reflect that she has character traits, or virtues, that dispose her to feel things appropriately and to act in accordance with reason or the pursuit of the human good. In addition, however, Aristotelian virtue requires an element of moral luck. In order to be virtuous, on this account, not only must we have the good intentions that come with good character, we also need to have the world accord with our intentions and our conceptions of the good. While waging a war might involve courage, it is not courageous to defend a cause grounded in falsehoods. Elisabeth here seems to grant Descartes a virtue ethical framework, but she raises what must be a standard Aristotelian objection to his view that virtue is simply being resolved to do what we judge to be best.

However, Elisabeth also wants to make a further point. For her, not only does our contentment depend on things outside our power, but also, she suggests, the very possibility of virtue, the capacity to judge well and to be resolved to act in accordance with those judgments, depends on things external to us. Our being in ill health can "destroy altogether the power of reasoning and by consequence that of enjoying a satisfaction of reason," or, to a lesser degree, affect our strength of will or simply our ability to judge things dispassionately. While she is still focused on the place of luck

in achieving virtue, it is not clear that an Aristotelian would go so far as to claim that our very faculty of reason—that which defines us as human beings—is subject to fortune.

Elisabeth then focuses more and more on the limits of our knowledge of the value of things and of the outcomes of our actions, and she implies that these limits preclude our ever achieving contentment. For her, this limitation gets a grip in two ways. On the one hand, Elisabeth thinks that we cannot be properly content unless we see our good in relation to that of others; so to achieve contentment from our actions we would need to know each other's true value. However, since we do not have complete knowledge, we cannot properly evaluate the outcomes of our actions, and so cannot properly compare them to other goods. On the other hand, Elisabeth maintains that to act virtuously, we would need to know the consequences of our actions in advance. For acting virtuously requires that we reason or deliberate about how to act and then choose to act in the way that will yield the greatest good. However, again, we do not have the knowledge adequate to this task.

Let me suggest that Elisabeth's objection here can be resolved in this way: if we assume Descartes' account of virtue, then virtue is insufficient for contentment, insofar as we require for it, in addition to virtue, the knowledge of the just value of our actions; for virtue to be sufficient for contentment, we would need an "infinite science" to guarantee that our best judgments are correct. Whereas her first objection focused on the degree to which contentment depends on fortune, this second line of attack highlights the intrinsic limits on what does depend on us, our knowledge.

To understand this objection, it is helpful to see it in its intellectual historical context. As noted above, the seventeenth century saw a revival of Stoic writings and in particular Stoic ethics. However, there is a distinction between classical Stoic ethics, for instance that outlined in Seneca's *De vita beata*, and the neo-Stoic effort to Christianize Stoicism.⁹¹ For one, the neo-Stoic movement selectively focused on ethics and so was not so concerned to preserve the situation of ethics within a whole system, as was classical Stoicism.⁹² Nonetheless, both Stoics and neo-Stoics hold that virtue is both necessary and sufficient for true happiness or contentment, and they take this contentment to be the end of all action. Moreover, in principle at least, both Stoics and neo-Stoics take it to be possible to achieve contentment in this life. This is particularly important for the neo-Stoics, for in focusing on

91. The discussion that follows has been informed by Donald Rutherford's "Neostoicism and Early Modern Perfectionism" (MS).

92. Justus Lipsius, the instigator of the Stoic revival, did provide critical commentary on Stoic physics in his *Physiologia Stoicorum*.

this life they diverge from traditional Christian ethics. Within that tradition, virtue is not sufficient for contentment, since contentment requires divine grace and cannot be achieved in this life. However, this same focus on the pragmatics of this life would seem to motivate neo-Stoics to diverge from their classical intellectual ancestors on what virtue consists in. For the Stoics, virtue is just perfection, or the full development of a being's intrinsically good powers. In the case of a human being, our faculty of reason constitutes our perfection, and so virtue, for us, is just a fully developed or *perfected* capacity of reason, that is, complete knowledge. In achieving this perfection, we cannot but achieve true happiness. For the Stoics, then, because virtue is not a matter of degree but complete perfection, contentment is not a matter of degree but an all-or-nothing affair. The Stoic sage is one who has achieved perfect knowledge and so is virtuous and content. While the neo-Stoics agree with the Stoics that human virtue consists in the perfection of our faculty of reason, they do not want to go so far as to claim that virtue consists in *perfected* reason. Rather, virtue consists in our *perfecting* our reason, our persistent effort to keep our practical reasoning within its proper limits, limits prescribed by divine will. Thus, the virtuous person, for the neo-Stoic, disposes her will well *as far as it is in her power to do so*. For the neo-Stoic, it is our principal task to determine what is properly within our power and what is not, to firmly resolve to do what is in our power, and to resist doing what is without. In this resistance we are to remain impassive to those things that affect us. This resolution of will effectively compensates for our imperfect knowledge on the neo-Stoic view and so allows us to be virtuous simply in exercising our faculties to the best of our ability, without our yet having realized any absolute perfection of those faculties. Thus, neo-Stoic virtue, unlike Stoic virtue, comes in degrees, and so does contentment.

From this point of view, Elisabeth's second objection can be read as defending Stoic ethics against Descartes' neo-Stoic modifications. Again and again, she wants to deny that Descartes' account of virtue—simply being resolved to do what one judges to be best—is sufficient for contentment. To defend her point, she relies on another Stoic doctrine—that complete knowledge is required for contentment. For her, contentment comes only when we act on judgments that turn out to be correct. Moreover, she claims that correct judgment is required not only for contentment but also for virtue itself. She thus seems to endorse the classical Stoic point that virtue requires a faculty of reason that is fully perfected, and not merely aiming to perfect itself. Indeed, her earlier point that our possessing the faculty of reason requisite for virtue is dependent on fortune is not inconsistent with a Stoic position. Stoics maintain that individuals are constituted through the causal

workings of the world and that the faculty of reason is a result of a particular distribution of rational matter (*pneuma*) in an individual. It is consistent with this view that the causal workings of the world might well have the result of compromising our faculty of reasoning. Our ability to achieve virtue would then depend on our good fortune at being properly positioned in the causal order. Though Elisabeth is no longer towing the Aristotelian line, in defending the classical Stoic position she is still advocating a virtue ethics.

Elisabeth's objections do not stop here, however. While she further develops her objection that complete knowledge is necessary for both contentment and virtuous action, the form of the objection takes another turn. If we knew the value of each thing, we would be able to measure the relative value of particular goods. However, without this complete knowledge, it is unclear what standard of evaluation we should use. Virtue and contentment might not require complete knowledge, but in its absence we still demand a measure of value. Because we do not have complete knowledge, this measure will in some way depend on personal dispositions and prejudices, but if it is to serve as a measure it must also manage to move beyond these personal perspectives.

With this attention to the measure of value, Elisabeth comes back to what motivated the discussion of the sovereign good in the first place—the passions. Our passions represent our personal perspectives in representing how things are important to us. The problem of how to regulate them is also the problem of how to measure relative value.

This move on her part suggests another reading of Elisabeth's objections, namely, motivating a contractarian ethics. Contractarian ethics takes as its starting point self-interested agents, each with his own desires. These desires may, and indeed are likely to, compete with one another. The contractarian task is for these individuals to come to an agreement about how they will value things in concert with one another, while still promoting their own interests.⁹³ In her early objections, Elisabeth is principally concerned with the problem of balancing self-interest against the interests of others or, more generally, with balancing competing interests. There, as we have seen, Elisabeth questions whether Descartes has the resources to reconcile competing evaluations of things and actions. Her objection presupposes that evaluations are made from a self-interested point of view. And there is no reason to think that different agents' interests, and so their evaluations, will coincide. The problem of ethics, on this view, is not to lead a good life and achieve contentment but rather to find a way of reconciling

93. Thomas Hobbes, in his *Leviathan* (1651), is usually credited with developing this account of the good.

these conflicting interests and the evaluations deriving from them. Contractarianism conceives of ethics in a similar way.

On this reading, the question of ethics, for Elisabeth, is essentially a political one. So this reading gains support from Elisabeth's request, in her letter of 25 April 1646, for Descartes' views on "the principal maxims . . . concerning civil life" and the ensuing exchange on Machiavelli's *The Prince*. Elisabeth sees that work as valuable insofar as it is concerned to promote a stable civil society; governing a state well involves balancing the competing interests of oneself as ruler and of one's subjects.

Moreover, the problem of balancing competing interests would have had some personal grip for Elisabeth. First, her family retained some hope of regaining their lost empire. At the time of this exchange with Descartes, Elisabeth was confronted by a very real case of the balancing of competing interests. Negotiations regarding the end of the Thirty Years' War were well under way, and it is certainly the case that the Palatine had interests that were not necessarily shared with other more powerful parties in these talks. In addition, although they may have been without a kingdom to rule, Elisabeth and her siblings seem to have been raised in such a way that they would be fully prepared to assume their proper places and to do so well. Their actions in their adult lives reflect as much. Charles Louis returned a war-ravaged land to economic prosperity in the small Palatinate he received at the end of the Thirty Years' War, as well as revived the university at Heidelberg. Sophie, as electress of Hanover, contributed to the success of that reign. Elisabeth's concern for the quality of life of those under her comes out in her correspondence with Descartes, both in her letter on *The Prince*, where she finds the practice of executing people "barbaric and unnatural," and in her observations on the poverty of the Berlin countryside when she is staying with her aunt at Crossen.⁹⁴ Elisabeth's tenure as abbess at Herford was also characterized by economic prosperity and a flourishing of the life of those who fell under her purview. Governing well thus seems to have been understood by the family to involve balancing the interests of individuals to promote the good of the whole.

It is not altogether clear how to understand Elisabeth's own perspective in this part of her exchange with Descartes. On the one hand, she raises objections from three different ethical frameworks—the Aristotelian, the Stoic, and the protocontractarian. She thus shows herself to be well versed in the various perspectives one can take toward one of the central questions of ethics: the nature of the good. And she is certainly availing herself of this

94. See her letters of 29 November 1646 and May 1647.

rich understanding of ethics to press Descartes to the view he is beginning to articulate here. She might thus be simply raising objections with the aim of furthering philosophical understanding. However, there is also a way of reading Elisabeth that suggests that Elisabeth herself is working to articulate an ethical theory of her own. To see this, we need to think about how her virtue ethics and skepticism work together.

As we have seen, along with a strain of Aristotelian virtue ethics, Elisabeth's second objection presupposes a Stoic account of virtue. To be truly virtuous, for her, involves having the complete knowledge that would allow us always to reason well about the right thing to do. On the other hand, she can be seen to discount the importance of virtue to focus on the practical matter of mediating differences of evaluation. Elisabeth's acceptance of the classical Stoic framework marks her as a virtue theorist. For she agrees that we are good or bad in virtue of those character traits that dispose us to act well for the right reasons. However, she also recognizes that true virtue is practically impossible in this life. Descartes, along with other neo-Stoics, recognizes the difficulty of achieving a perfect Stoic virtue in this life as well, but he responds by shifting the conditions for virtue. For the neo-Stoics one need not succeed in doing good to be virtuous; one need only be resolved to act well; virtue is a matter of good intentions and does not hinge on the outcomes of our actions. Elisabeth, however, demands more consistency between the ethical context and other areas of philosophical inquiry, and in particular epistemology.

In the *Meditations*, Descartes is unwilling to grant that we have knowledge just by judging the best we can. Rather, we have knowledge only when we follow the rule for avoiding error, that is, when we affirm only those ideas we perceive clearly and distinctly. Certainly, we are to work to arrive at those clear and distinct perceptions, but if we fall short, we are to suspend judgment; we err when we do not, and we do not yet have knowledge. We can see Elisabeth as demanding a symmetry between the epistemic and the ethical contexts. Whereas in the ethical context, Descartes is willing to maintain that we can actually be virtuous even though we err and, moreover, that we can achieve contentment in the face of this error with the assurance that we did the best we could, for her we cannot be virtuous unless we see clearly the true value of things and the outcomes of our actions.

Nonetheless, Elisabeth recognizes that ethics is concerned with how we should act, and she admits that in the practical context we cannot suspend judgment as we can in the epistemic, or theoretical, context. Moreover, given that our knowledge is incomplete, our evaluations are driven by our passions, those thoughts that represent the importance of things to us. Resolution

of will, in her view, is an insufficient compensation for our ignorance. For, of course, different people will take things to be important in different ways, depending on their natural temperaments or the passions they are currently feeling. And herein lies the problem. It seems that these differences in passionate evaluations can lead only to intractable disagreement, more intractable the more resolute each individual is. For there is nothing reason can say to alter our temperament or to get us to shift our focus away from the passion that grips our perspective. It is in this context of practical ignorance that Elisabeth's rational theoretical suggestions emerge. For she wants a measure whereby we might have a standard for our evaluations, one independent of any one particular perspective. With this measure in hand we might arrive at a calculus for choosing one alternative or another, given imperfect knowledge. This measure can allow us to achieve, if not virtue, then an appropriate degree of contentment in this life.

In this correspondence, however, this idea is left simply as a demand and is not fleshed out. Still, an examination of how Elisabeth's objections progress gives us insight into how a revival of Stoic virtue ethics and skepticism in the seventeenth century may well have motivated the development of contractarian ethics. Of course, here I am making only a suggestion, and more work needs to be done to articulate how these strands of thought come together.



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NOTE ON TEXTS AND TRANSLATION

In the preparation of this translation, I have relied largely on the Adam and Tannery edition of Descartes' *Oeuvres*, though I have also consulted Foucher de Careil's original publication of Elisabeth's letters, as well as the editions of Jacques Chevalier and of Jean-Marie and Michelle Beyssade (who rely on Chevalier). I also consulted the original manuscript, now in the care of the Geldersch Landschap and Geldersche Kasteelen in Arnhem, Netherlands, as part of the Rosendael collection. This manuscript is not in Elisabeth's own hand but consists of copies, written all at once. Jeroen van de Ven, a member of Professor Theo Verbeek's team, thinks the copies were made in the early eighteenth century. The letters were copied out of chronological sequence and in no particular order. They are bracketed by copies of two letters from Queen Christina of Sweden to Descartes. The first, of 2 December 1648, is familiar (see AT 5:251–52, there dated 12 December 1648): the second concerns Christina's abdication but was written a good four years after Descartes' death. This second letter seems to be a form letter with a wide circulation.

The dating of several of Elisabeth's letters is problematic, in a way similar to that of the 1648 letter from Christina. In redating Christina's letter to 12 December, Adam and Tannery (following Foucher de Careil) assume that the date follows the Julian rather than the Gregorian calendar. They make a similar assumption with a number of Elisabeth's letters, though they are not consistent in diverging from the manuscript date. When their dating does differ from that of the manuscript they do not always offer adequate reasons. In this edition, I have chosen to follow the manuscript uniformly, simply because there is no good basis for choosing one calendar over another. Here I follow the choice of Theo Verbeek, Erik-Jan Bos, and Jeroen van de Ven

in their edition of Descartes' correspondence of 1643. The letters where my date diverges from Adam and Tannery are: 6 May 1643 (AT date: 6/16 May); 10 June 1643 (AT date: 10/20 June); 30 September 1646 (AT date: 10 October).

In another matter, the signature of Elisabeth's letter of 4 December 1649 refers to a previous letter of 10/20 November, but this letter is not part of the manuscript and appears to be no longer extant.

It is very difficult to determine the provenance of these copies. Whoever arranged for Elisabeth's letters to be copied must have also had access to Christina's letters—and been given notice of Christina's abdication. Verbeek speculates that they are a copy of a copy made surreptitiously by Chanut at the time of Descartes' death, even though Chanut assured Elisabeth he would do no such thing. But there is no known connection between Chanut and Rosendael. The letters may also have been copied by someone associated with Elisabeth. Here there is scant evidence. In 1722, one Petronella Wilhelmina van Hoorn married the owner of Rosendael, and she may have been related to Elisabeth's close companion at the convent at Herford, Countess Anna Maria van Hoorn. Van Hoorn is referred to in the correspondence with Barclay and Penn included in this volume, but little information is known about her. However, even if Anna Maria van Hoorn did possess Elisabeth's letters, and copies were in the possession of Petronella Wilhelmina, there is still the problem of explaining how Christina's letters come into the mix. Perhaps Elisabeth had these in her possession as well.

As regards the translation itself, I have benefited from the excellent translation of Descartes' letters published in volume 3 of *The Philosophical Writings of Descartes*, edited and translated by John Cottingham, Richard Stoothoff, Dugald Murdoch, and Anthony Kenny, and I have consulted the translations of John Blom and Andrea Nye. These translations derive from the Adam and Tannery *Oeuvres*. Outside of the dating question, the Adam and Tannery transcription of the manuscripts is accurate.

Edward Reynolds's dedication of his *Treatise on the Passions and Faculties of the Soule of Man* to Elisabeth has been transcribed from the 1640 edition of that work.

The correspondence with Robert Barclay is a transcription from *Reliquiae Barclianae: Correspondence of Colonel David Barclay and Robert Barclay of Urie* (London: Winter & Bailey, Lithograph, 1870). I thank the library at Haverford College for access to this work. The original material is a lithograph of

handwritten copies of Barclay's letters and contains very little punctuation. I have added contemporary punctuation as seemed appropriate.

The correspondence with William Penn is a transcription from Penn's *An Account of W. Penn's Travels in Holland and Germany, Anno MDCLXXVII* (London: T. Sowle, 1695). This account was published after being found among Anne Conway's papers.



THE CORRESPONDENCE

ELISABETH TO DESCARTES

[*The Hague*] 6 May 1643

M. Descartes,

I learned, with much joy and regret, of the plan you had to see me a few days ago; I was touched equally by your charity in willing to share yourself with an ignorant and intractable person and by the bad luck that robbed me of such a profitable conversation. M. Palotti² greatly augmented this latter passion in going over with me the solutions you gave him to the obscurities contained in the physics of M. Regius.³ I would have been better instructed

1. I provide the reader with the volume and page references from the Adam and Tannery edition of Descartes' *Oeuvres*. The page number indicates the beginning of the page.
2. Alphonse Pollot (1602–68), whom Elisabeth refers to as Palotti, was a gentleman-in-waiting to the prince of Orange. In his letter to Pollot of 6 October 1642, Descartes notes his happiness that Elisabeth has read and seems to approve of his *Méditations*, as well as his intention to visit The Hague to meet her (see *Oeuvres de Descartes*, ed. Charles Adam and Paul Tannery, 11 vols. [Paris: Cerf, 1897–1913; new ed., Paris: Vrin, 1964–7; reprint, Paris: Vrin, 1996, cited hereafter as AT] 3:577–78). This letter would seem to mark Descartes' attempt at this meeting. Pollot's relation to Descartes began in 1638 with an exchange, through Henricus Reneri, about Descartes' *Discourse on the Method*. Pollot, as suggested here, effected the introduction between Descartes and Elisabeth. He appears to have tutored Elisabeth in geometry (see Descartes to Elisabeth, November 1645) and often served as the courier of their correspondence (see Elisabeth's letter of 24 May 1645; below). Reneri (1593–1639), a French philosopher, was a professor of philosophy at the University of Utrecht.
3. Henri le Roy or Regius (1598–1679) was a Dutch physician who took up Descartes' physics and physiology and taught them as chair of medicine at the University of Utrecht, beginning in 1638. Elisabeth's remarks here suggest that she was tutored by Regius or at least read his *Physiologia sive cognitio sanitatis* (Utrecht: Roman, 1641). While at Utrecht, beginning in 1642, Regius was attacked as promulgator of Cartesian philosophy by Professor of Theology Voetius. He was supported by Descartes in these battles until 1646. At that time there was a public falling out between Descartes and Regius upon publication of Regius's *Fundamenta Physica*. Descartes' side of this dispute can be seen in the French preface to the *Principles* and the *Comments on a Certain Broadsheet*. One can see trouble ahead in their earlier 1641 correspondence: see