

Introduction: First truths and half truths

In October 1687, Leibniz set out from his home in Hanover for an extended tour of Germany, Austria, and Italy. His official duty was to research the history of the House of Brunswick; his personal desire was to effect religious and political peace in Europe. He visited public archives and personal libraries; he conversed with politicians, monks, and cardinals. Besides historical research and peace proposals, he was engaged in other projects as well. During his residence in Vienna, for example, he met with the Austrian emperor to whom he recommended, among other things, the reorganization of the economy, the formation of a general research library, and the establishment of an insurance fund; he worked on proposals for instituting an Imperial College of History, for reforming the coinage of Austria, Brunswick, and Saxony, and for lighting the streets of the city; and he wrote a paper on motion, which he later published in one of the leading journals of the time. 1 Leibniz liked to keep busy. It was in the midst of such a startling array of activities that he produced one of his most famous texts, a short paper entitled First truths.² Composed on Italian paper, First truths was written during the months following his year-long stay in Italy (March 1689 to March 1690).³ That Leibniz would find time during his research and travels for a concise summary of his metaphysical principles is noteworthy, as is the fact that the text makes no reference to any of the other prominent activities in his intellectual life. It stands, in its four-page entirety, as a brief presentation of his most basic philosophical principles.

In this book, I offer the first systematic account of Leibniz's philosophical development. Some of my conclusions are historically startling. For ex-

- Leibniz's proposal for lighting the streets of Vienna was implemented. I iv 391f: E. J. Aiton, Leibniz: A Biography, 150.
- 2. The majority of Leibniz's most important writings were not published during his lifetime, and there remains a good deal of confusion about the history of the publication of his works. For example, Anthony Kenny claims in the Oxford Illustrated History of Western Philosophy that the Discourse on metaphysics was Leibniz's "earliest" publication (152). In fact, the Discourse was not published during Leibniz's lifetime and, if it had been, it would not have been among the earliest. To distinguish between published and unpublished texts, I capitalize all the words in the title of published works and only the first word in the title of unpublished ones.
- 3. The Academy editors give the piece the date of 1689. See VI iv [B]1643-44. Although the editors have entitled the work *Principia logico-metaphysica*, I will retain its standard title, *First truths* (*Primae veritates*) here.



INTRODUCTION

ample, I claim that original versions of both the complete concept theory of substance and the doctrine of Preestablished Harmony were in place when Leibniz went to Paris in 1672 (that is, fourteen years before the composition of the *Discourse on metaphysics* and at least seventeen years before his *First truths*); that many of Leibniz's most basic philosophical views evolved in an attempt to solve specific theological problems (e.g., those of incarnation and resurrection); and that the source for some of the most important of these doctrines (e.g., Preestablished Harmony) was a version of Platonism which, though not recognized by scholars, was extant in seventeenth-century Germany. Other conclusions are philosophically surprising. For example, I argue that underlying Leibniz's metaphysics is the belief that each substance contains the essence of God which means, among other things, that God is both the unity and the diversity in the world.

Nor is that all. One of the basic assumptions behind my interpretation is that we will not discern key aspects of Leibniz's philosophical system unless we acknowledge that it was constructed to effect intellectual peace. Seventeenth-century philosophers often had grand ambitions. In 1641, Descartes announced that one of the goals of his Meditations on First Philosophy was to construct a new and firm foundation for the sciences. As he put it in the first *Meditation*, he intended "to demolish everything completely and start again right from the foundations" in order "to establish something in the sciences that was stable and likely to last." 4 When Leibniz wrote the First truths in 1689, his goals were even more far-reaching. His first truths were supposed to effect a new world order. That Leibniz intended his metaphysics to constitute the foundations for philosophical, theological, and political peace seems odd from our twenty-first-century perspective, but Leibniz was entirely sincere in his conciliatory effort. The metaphysics of the First truths is the result of a brilliant melding of ideas from a stunningly diverse group of sources. Leibniz's goal was to bring about intellectual peace by constructing a true metaphysics built out of the materials of the noblest philosophical traditions. His elaborate attempt to combine doctrines from philosophers as diverse as Plato, Aristotle, and Descartes while solving the great theological and philosophical problems constitutes an unnoticed aspect of his brilliance.

Given the importance of Leibniz to the history of philosophy and given the cherished position that he has held among analytic historians of philosophy throughout this century, it is remarkable that there could be so much to learn both about the basic features of his system and about the underlying motivation behind his thought. Before turning to a summary of this book, it will be helpful to reflect briefly on why we have remained so ignorant about some of the fundamental aspects of Leibniz's thought.

4. AT VII 17: CSM II 12.



More information

FIRST TRUTHS AND HALF TRUTHS

1. Half truths

Not only did the philosophy of Leibniz's *First truths* not effect universal peace in the seventeenth century, it did not bring peace to the twentieth-century commentator. For decades, core features of the philosophy presented in the essay have baffled scholars. Even the date of the *First truths* has been a source of confusion. Before considering some of these interpretive problems, it will be worthwhile to review the contents of the text.

Leibniz begins the paper by presenting as his first truths the law of identity, the law of non-contradiction, and his own definition of truth. About the latter, he writes:

the predicate or consequent is always in the subject or antecedent, and the nature of truth in general or the connection between the terms of a statement, consists in this very thing, as Aristotle also observed. The connection and inclusion of the predicate in the subject is explicit in identities, but in all other propositions it is implicit and must be shown through the analysis of notions; *a priori* demonstration rests on this.

Leibniz then asserts: "Many things of great importance follow from these considerations, considerations insufficiently attended to because of their obviousness. For the received axiom that *nothing is without reason*, or *there is no effect without a cause*, directly follows from these considerations." ⁵

In the remainder of the essay, Leibniz unpacks the other implications of "these considerations" which include his fundamental metaphysical doctrines: "that in nature there cannot be two individual things that differ in number alone;" that "there are no purely extrinsic denominations;" that the "complete or perfect notion of an individual substance contains all of its predicates, past, present, and future;" that "[e]very individual substance contains in its perfect notion the entire universe;" that "all individual created substances are different expressions of the same universe and different expressions of the same universal cause, namely, God;" that "strictly speaking no created substance exerts a metaphysical action or influx on any other thing;" that the mind-body union and the relation among all created substances is one of "concomitance;" that "[t]here is no vacuum;" that "[t]here is no atom;" that "every particle of the universe contains a world of an infinity of creatures;" and that "corporeal substance can neither arise nor perish except through creation or annihilation." Such apparently are Leibniz's first truths.

Independently of one another, at the turn of the century, Bertrand Russell and Louis Couturat developed strikingly similar interpretations of Leibniz's metaphysics and its foundations. Oversimplifying somewhat, according to each, the key to Leibniz's thought is his logic, his concept of sub-

- 5. VI iv [B] 1644-45: AG 31 \L 268.
- 6. VI iv [B] 1645-49: AG 31-34\ L 268-70; Leibniz's emphasis.
- 7. For a brief summary of these doctrines, see Appendix, Part I.



INTRODUCTION

stance proceeds from his logic, most particularly from his theory of truth, and the *Discourse on metaphysics* of 1686, which is supposed to be the first full expression of his philosophy, offers the necessary background to the *Monadology* of 1714. Russell's arguments were impressive, but the case made by Couturat was even more so. As Russell wrote about his original thesis in the preface to the second edition of his book, its "principal thesis – namely, that Leibniz's philosophy was almost entirely derived from his logic – received overwhelming confirmation from the work of Louis Couturat." According to Russell, although his own work had relied "almost exclusively" on the *Discourse on metaphysics* and the letters to Arnauld, Couturat drew on "innumerable writings expressing the same point of view, which had remained buried among the mass of documents at [the archives in] Hanover for over two centuries." Among the writings discovered by Couturat, the most important, according to Russell, was the *First truths* to which Couturat had given the date of 1686 and in which:

all the main doctrines of the 'Monadology' are deduced, with terse logical rigour from the premiss: 'Always therefore the predicate or consequent is in the subject or antecedent, and the nature of truth in general or the connection between the terms of a statement, consists in this very thing. . . . Moreover this is true for every affirmative truth, universal or particular, necessary or contingent.' ¹⁰

Russell claims that on the basis of such texts, "[n]o candid reader . . . can doubt that Leibniz's metaphysics was derived by him from the subject-predicate logic." For Russell, "Couturat's work afforded conclusive confirmation" of his own interpretation, and went beyond his account to prove, for example, that the identity of indiscernibles is "expressly deduced by Leibniz from the analytic character of all true propositions." 11

The Russell–Couturat account of Leibniz's philosophy and its development was enormously attractive: it offered a brilliant interpretation of some very baffling aspects of Leibniz's metaphysics and it told an engaging story about how a mathematician of Leibniz's caliber could produce such an apparently bizarre metaphysics. Russell's vivid description of the revelatory experience that motivated his book, although well-known, is worth quoting at length. Besides the insight the passage affords into Russell's approach, it is amusing to think of the co-author of the *Principia Mathematica* fretting about how to make Leibniz's thought sensible to his Cambridge undergraduates. About his first thorough study of Leibniz's texts, Russell wrote:

In the Lent Term of 1899 I delivered a course of lectures on the Philosophy of Leibniz at Trinity College, Cambridge. In preparing these lectures, I found myself, af-

- 8. Couturat originally published *First truths* and his interpretation of Leibniz's thought in *La logique de Leibniz d'après des documents inédits* of 1901. He then summarized his position in "Sur la métaphysique de Leibniz" of 1902. For Russell's interpretation, see *A Critical Exposition of the Philosophy of Leibniz*, esp. 18–19 and the preface, 2nd ed.
- 9. Russell, Critical Exposition, v.
- 10. Ibid. In Russell's text, the premise was left untranslated. I have translated it here.
- 11. Ibid.



More information

FIRST TRUTHS AND HALF TRUTHS

ter reading most of the standard commentators and most of Leibniz's connected treatises, still completely in the dark as to the grounds which had led him to many of his opinions. Why he thought that monads cannot interact; how he became persuaded of the Identity of Indiscernibles; what he meant by the law of Sufficient Reason – these and many other questions seemed to demand an answer, but to find none. I felt – as many others have felt – that the *Monadology* was a kind of fantastic fairy tale, coherent perhaps, but wholly arbitrary.

Russell's puzzlement about the philosophical motivations behind the *Monadology* encouraged him to further his researches.

At this point I read the *Discours de Métaphysique* and the letters to Arnauld. Suddenly a flood of light was thrown on all the inmost recesses of Leibniz's edifice. I saw how its foundations were laid, and how its superstructure rose out of them. It appeared that this seemingly fantastic system could be deduced from a few simple premisses, which, but for the conclusions which Leibniz had drawn from them, many, if not most philosophers would have been willing to admit. . . . I have . . . endeavoured as far as possible to exhibit the theory of monads as a rigid deduction from a small number of premisses. The monad thus appears, not at the beginning of the exposition, but after a long preliminary chain of reasoning. And it must, I think, be allowed that, if this account be correct, Leibniz's value as a philosopher is very much greater than that which would result from the customary exposition. 12

The Russell-Couturat story gained enormous prestige. Its elegance inclined scholars to look closely at Leibniz's logical papers and try to discern the precise interrelations among his first truths. Russell was especially outspoken about the superiority of the part of the metaphysics that interested him and the inferiority of the remainder of the system. He insisted, for example, that there was nothing either original or worthwhile about Leibniz's conception of God: "Leibniz, whenever he treats God at all seriously, falls involuntarily into Spinozistic pantheism."13 Indeed, it was Russell's contention that the main components of the system did not fit together: "the relation of Leibniz's Dynamics to his Metaphysics is hopelessly confused, ... the one cannot stand while the other is maintained.... As a matter of fact, the want of connection is, I think, quite one of the weakest points in his system." Moreover, as Russell continues, the dynamics is "a mass of confusions."14 Following Russell's lead, many subsequent scholars felt justified in treating the logical notion of a substance in isolation from the other parts of Leibniz's thought and even from his other descriptions of substance. The article on Leibniz in the Dictionary of Scientific Biography offers a striking example of the authority and longevity of the Russell-Couturat approach. At the outset of the section on Leibniz's metaphysics, entitled "Logical Atomism," we find the following, published in 1970: "Since the investigations of Russell and Couturat, it has become clear that Leibniz's theory of monads is characterized by an attempt to discuss metaphysical questions within a framework of logical distinctions." Furthermore, because Rus-

^{12.} Ibid., xiii-xiv. 13. Ibid., 185-86. 14. Ibid., 89-91.

^{15.} Joseph Hofmann, "Leibniz," Dictionary of Scientific Biography, vol. 8, 156.



INTRODUCTION

sell claimed that Leibniz had "a good philosophy which (after Arnauld's criticisms) he kept to himself, and a bad philosophy which he published with a view to fame and money," it was easy for students of Leibniz's philosophy to ignore "the vulgarized version" of his thought that he wrote "for cheap popularity" and for "the admiration of Princes and (even more) of Princesses." ¹⁶

In recent years the influence of the Russell-Couturat interpretation has waned. Despite its interpretive elegance, it failed to deliver the goods. After decades of debating the interrelations among the first principles, much of the metaphysics of the First truths in particular and the mature philosophy in general has remained mysterious. Although commentators have struggled nobly to decipher the exact interrelations among the first truths, no coherent story has been told that included them all. In short, after years of analysis, scholars have found no subset of first truths that strictly implies the others. But matters are worse than that. Not only has the Russell-Couturat approach failed to account for the precise interrelations among the doctrines, it has left many of them unmotivated and unexplained. For example, scholars have not found in the other "first truths" a plausible motivation behind Leibniz's claims that "every substance expresses every other" and that every substance "contains" the world; nor have they been able to explain satisfactorily either the unity, indestructibility, or indivisibility of substance. Such features of substance remain as the unmotivated givens of Leibniz's system. The failure of the approach has seemed all the more severe because Leibniz himself suggests that the elements of his system are tightly interwoven. As he writes in 1710: "My principles are such that they can hardly be torn apart from each other. Whoever knows one well knows them all."17

With the publication of more of Leibniz's papers and with a shift in methodology among historians of philosophy, recent scholars have widened their textual and historical scope and proposed an account of his thought that is based on a broader range of texts and a more thorough understanding of his philosophical interests. By piecing together recent studies of his philosophy, we arrive at the following story: Leibniz rejected the scholasticism of his youth around 1663 and accepted the new mechanical philosophy according to which all corporeal features are reducible to and explainable in terms of the movement of material parts. He remained a mechanist and toyed with atomism while retaining an interest in some aspects of the philosophy of Aristotle during the 1660s. He presented his first attempt at original (as opposed to derivative) metaphysics in his first major publication, the two-part Theory of Abstract Motion and New Physical Hypothesis of 1671. A few scholars have proposed that he was an occasionalist during this time and others have argued that during his years in Paris (1672-76) he fell under the influence of Spinoza and was a pantheist, if only for a short while. Some commentators have ignored the obscure details of the early

16. Russell, A Critical Exposition, vi. 17. G II 412: L 599.



FIRST TRUTHS AND HALF TRUTHS

years and discerned elements of the mature philosophy; others have taken those details as evidence of indecision and immaturity. It is often claimed that during a burst of energy either in the late 1670s or early 1680s (he had invented the calculus and in general worked on mathematical matters in the mid-1670s), Leibniz developed his theory of truth and some of the other first principles of his metaphysics. He is said to have presented these ideas in the Discourse on metaphysics (1686) and First truths, tinkered with the details of the system in the 1690s, and eventually summarized his mature metaphysics in the Monadology (1714). There has been a raging debate about his conception of body in general, about the real extension of body in particular, and about whether he was already an idealist in the 1680s. A few scholars have noted Leibniz's youthful interest in Platonism and eclecticism, but there has been little doubt about the fact that his early years (roughly through his Paris period) represent a period of "confusion and indecisiveness" and that it was during the 1680s that the core features of his metaphysics were put in place.¹⁸

What is perhaps most striking about this story is the fickleness attributed to Leibniz's philosophical personality. It implies that for nearly twenty years the brilliant young man cast about for solutions to the great philosophical problems of his day before arriving at his own response and that, in the meantime, he tried on scholasticism, mechanism, atomism, occasionalism, and Spinozistic pantheism before making up his own philosophical mind. The basic idea is that at some point between the late 1670s and the mid-1680s he "worked out the details of his philosophical system . . . in a concentrated period of thought" and gave birth to his philosophy fullgrown. 19 The result was an elaborate set of logical and metaphysical principles. Part of the Russell-Couturat influence lingers here: there has been a tendency to focus on the logical side of Leibniz's thought and to assume that the development of the logic and the conception of truth must stand at the core of the metaphysics and signal its birth. Despite its greater complication and wider textual base, this developmental story sheds virtually no light on the motivations behind Leibniz's metaphysics. By such means, we have returned to Russell's position before his revelation: we are again "completely in the dark as to the grounds which had led [Leibniz] to many of his opinions." Neither the decades of analysis nor the more thoroughly researched developmental story reveal the deep interconnections among Leibniz's first truths. Some recent scholars have embraced the implied con-

- 18. The quotation here is from Catherine Wilson, *Leibniz's Metaphysics: A Historical and Comparative Study*, 2. Full citations to the authors who have contributed to this story will appear in the course of the book, esp. chs. 1, 2, 5, and 10.
- 19. Nicholas Rescher, *Leibniz: An Introduction to his Philosophy*, 7. Although Rescher and other commentators make statements such as "the rudiments of monadism were conceived by 1675" (7), they seldom explain what they mean. Instead of an account of Leibniz's development, they offer a list of the claims contained in the Paris notes that seem like Leibniz's later doctrines. See, e.g., Rescher's "Contributions of the Paris Period (1672–76) to Leibniz's Metaphysics," and some of the other articles in *Leibniz à Paris*.



More information

INTRODUCTION

clusion. André Robinet and Catherine Wilson eloquently argue that Leibniz developed (at least) two separate and fundamentally inconsistent systems.²⁰

Recently, however, some commentators have tried to motivate the system. For those scholars who see Leibniz as fundamentally rooted in the Baroque intellectual complexity of his time, he was motivated to construct an "architectonic" and synthetic system whose internal complexities and "folds" he found intellectually satisfying.²¹ As one scholar puts it, Leibniz "was a baroque philosopher in a baroque world."²² For those who approach Leibniz through the maze of seventeenth-century science and mathematics, it is the set of problems that cluster around physics and the continuum that motivates much of the philosophy.²³ According to those interpreters who are willing to take seriously Leibniz's genuine interest in theological issues, it is the latter that seem to explain the system. For example, Donald Rutherford has recently presented a lengthy and elegant argument showing the central place that theodicy had in Leibniz's thought. 24 The remarkable thing about these stories is that while they are inconsistent with one another, each of them has the ring of truth. That is, every one of these accounts resolves a number of tensions in Leibniz's texts and makes sense of a part of his system. According to Lewis White Beck, this is not surprising:

Leibniz never succeeded in giving a comprehensive and coherent presentation of his entire philosophy. . . . Nor has any historian of philosophy written a wholly systematic presentation that satisfies others who, with most of the same documents before them, present quite different but perhaps equally comprehensive and consistent accounts. . . . A being of so many dimensions cannot be pictured without a choice of perspectives, and no man has presented as many faces to the historian of philosophy as Leibniz did. It is not to be wondered that historians do not agree about 'the real Leibniz.' Leibniz, more than any other philosopher, was all things to all men. ²⁵

The interpretation that I offer of Leibniz's philosophical development borrows from all of these approaches. It endorses the suspicion of many of these scholars that in order to understand "the fantastic fairy tale" we need to know as much as possible about what motivated it. It agrees with the Russell–Couturat assumption that there is a sublime elegance among the first

- 20. For a good introduction to the difficulties and tensions in the philosophy of the mature Leibniz, and for a survey of some of the literature about them, see Wilson, *Leibniz's Metaphysics*, ch. 3.
- 21. See André Robinet's Architectonique Disjonctive, automates systémiques et idéalité transcendantale dans l'oeuvre de G. W. Leibniz, and Gilles Deleuze's The Fold: Leibniz and the Baroque.
- 22. Lewis White Beck, Early German Philosophy: Kant and His Predecessors, 202.
- 23. Independently of one another, two scholars have recently argued that an attempt to solve the problem of the continuum lies behind much of Leibniz's thought. See Richard Arthur's introduction to his *The Labyrinth of the Continuum* and Philip Beeley's *Kontinu*ität und Mechanismus.
- 24. Donald Rutherford, Leibniz and the Rational Order of Nature.
- 25. Beck, Early German Philosophy, 202.



FIRST TRUTHS AND HALF TRUTHS

truths, but it insists that we will not grasp the elaborate metaphysics of which those truths are a part without a good deal of historical and textual work. It embraces the assumption that Leibniz intended to solve the pressing problems of his day and to build an elaborate and thoroughly Baroque system, but it refuses to consider one problem or influence to the exclusion of others. It acknowledges that Leibniz presented many different faces, but it proposes that each of these draws upon an underlying set of interconnected assumptions. Among other things, we need to take seriously Leibniz's call for intellectual peace and religious insight; we need to recognize his conciliatory eclecticism and to discern the Platonism at its core; and we need to see that the driving force behind much of his work is the belief that God is the transcendent source of everything. According to Leibniz, each creature is divine; the object of human life is to discover this divinity within the world and to perceive our place in universal harmony. The goal of the knowledge that Leibniz would have us seek requires that we understand our place in and relationship to the whole of God's creation. Leibniz was naive enough to believe that once the true metaphysics was accurately presented, it would lead the enlightened soul to personal, religious, and even political peace. Whether or not these assumptions strike us as strange from our twenty-first-century perspective, Leibniz warmly embraced them.

2. First problems

Readers may reasonably balk at this point. For most, the claims just presented will not sound familar. Since Leibniz is one of our philosophical heroes, it certainly seems odd that there remains so much to learn about his philosophy. I would like to address this difficulty briefly and to offer an explanation as to why so much of Leibniz's thought has escaped us for so long.

I take it to be obviously true that in order to understand the proposals of a major philosopher in the seventeenth century, one needs to read the main writings of the figure and to situate those texts within their proper intellectual context. To do this, however, is not as easy as it sounds. Not only is it sometimes difficult to identify what the main texts are, it is frequently impossible to know which of the abundant intellectual currents of the period will prove relevant to them. Let's consider briefly the related problems of textual and contextual identification.

For many seventeenth-century authors, in order to discern the details of their system, it is unwise to restrict one's attention only to published works. Given the importance of letters in the period as a means of promulgating philosophical views, a consideration of the relevant correspondence can be extremely illuminating. Moreover, in those cases where there are extant drafts of texts, a careful comparison between the draft and the published version of a text can reveal a great deal about underlying worries and assumptions. But a problem arises: once the consideration of drafts of texts and related letters has begun, it is unclear how to stop the textual survey. Every scrap of writing becomes relevant, and the main texts become lost in



INTRODUCTION

a mass of unedited papers. Nor is that all. The relevance of some texts will not be evident until the context is set. But the difficulty of setting the right context makes the textual problems seem small by comparison. Because of the enormous complexity of the seventeenth-century intellectual debate, it is often extremely difficult to identify the intellectual currents relevant to a particular author. The writings of Descartes afford a good example of an early modern thinker whose letters are revealing and whose philosophical context is both relevant to the evaluation of his thought and difficult to reconstruct. For example, despite his energetic attacks on scholasticism, Descartes often relies on scholastic notions in his published works, and sometimes proclaims the virtues of the scholastics in his letters;²⁶ despite his proclamations of complete originality, many of his ideas have an ancient pedigree.²⁷ But the student of Descartes need not despair. Because historians of philosophy have begun to chart some of the previously unexplored regions of seventeenth-century thought, real progress has been made in recent years in more properly situating and therefore in better understanding the texts of philosophical giants like Descartes.

Unfortunately for the student of Leibniz's thought, both the textual and contextual problems are much more severe. As scholars have often noted, there is no single exposition of Leibniz's metaphysics replete with extended arguments and details. He published very little during his lifetime and none of the published texts (e.g., A New System of Nature, the Theodicv) is a thorough-going account of his philosophy. Although there are a number of identifiable main texts, it remains unclear how to treat their interrelations since they contain noticeable differences and were often written over many years. Except perhaps for the Monadology, one has to piece together Leibniz's system out of letters and a vast number of short essays and notes. This is a formidable chore since our energetic German wrote hundreds and hundreds of letters and thousands of pages of notes, of which only a relatively small proportion has yet been published. As courageously as the Academy editors in Germany confront the daunting task of preparing these vast materials for publication, it will be decades before all the philosophical papers and letters are in print. This enormous body of work and the problem of gaining access to it create a genuine obstacle to the would-be scholar. It is surely a difficult assignment to acquire a broad understanding of Leibniz's thought and to attend to all of its aspects when a major part of it remains unavailable for easy inspection.

- 26. For the best recent treatment of Descartes' complicated relation to scholastic physics and for citations to other literature, see Dennis Des Chene, *Physiologia: Natural Philosophy in Late Aristotelian and Cartesian Thought.* For Descartes' positive attitude to some scholastic philosophers, see Roger Ariew, "Descartes and Scholasticism: The Intellectual Background to Descartes' Thought."
- 27. It is striking that Descartes' contemporaries recognized the debt he owes to philosophers like Augustine. See, e.g., Johann Christoph Sturm, *Philosophia Eclectica*, 51–53, and Hermann Conring in correspondence with Leibniz, II i 84f. For a recent study of Descartes' Augustinianism, see Stephen Menn, *Descartes and Augustine*.