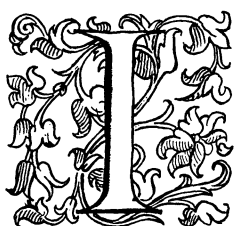


## Oppositions in Late-Renaissance Thought: Three Case Studies

 TALIAN CULTURE of the late sixteenth century offers a picture of stark philosophical contrasts and intellectual eclecticism. The unprecedented explosion of information during the previous century, set off in particular by an astonishingly active printing industry and new technological and geographical discoveries, presented literate Italians with a bewildering variety of thoughts on almost any subject and fostered ideological conflicts of increasing severity and clarity. Not surprisingly, then, historians have often conceived of this culture as a confrontation of conflicting intellectual, spiritual, and social forces: classical versus Christian tradition, secular versus sacred realm, Aristotelianism versus Platonism, totalitarianism versus republicanism, feudalism versus capitalism, logic versus rhetoric, and traditional varieties of mystical thought versus emerging scientific rationalism. Indeed William Bouwsma, one of the most eloquent of these historians, has viewed late-Renaissance culture as an even more general conflict of antithetical world-views embracing many of the dichotomies named above; he calls these views the medieval and Renaissance “visions.” And, finally, Bouwsma’s visions reflect one more pair of opposed terms, often invoked in discussions of Renaissance culture: humanism and scholasticism. It is with these last terms that we will be most lengthily concerned, for they bear especially important implications for the intellectual and artistic climate of the late *cinquecento*. To understand their significance at this time, however, we must quickly trace their origins some three centuries before.<sup>1</sup>

1. On humanism and scholasticism I follow in particular John W. Baldwin, *The Scholastic Culture of the Middle Ages*; Hans Baron, *The Crisis of the Early Italian Renaissance*; William J. Bouwsma, *The Culture of Renaissance Humanism*; Bouwsma, “Renaissance and Reformation”; Bouwsma, *Venice and the Defense of Republican Liberty*; Eric Cochrane, “Science and Humanism in the Italian Renaissance”; Eugenio Garin, *Italian Humanism*; Hanna H. Gray, “Renaissance

Humanism”; Paul Oskar Kristeller, *Renaissance Thought: The Classic, Scholastic, and Humanist Strains* (hereafter *Renaissance Thought, I*); Kristeller, *Renaissance Thought, II*; Erwin Panofsky, *Gothic Architecture and Scholasticism*; Jerrold E. Seigel, “‘Civic Humanism’ or Ciceronian Rhetoric?”; Seigel, *Rhetoric and Philosophy in Renaissance Humanism*; and Henry Osborne Taylor, *The Medieval Mind*.

Paul Oskar Kristeller has taught us that scholastic premises and methods came late to Italy, imported from France in the decades before 1300—just prior, that is, to the first stirrings of Italian humanism. Italian scholasticism was therefore not so much a medieval mode of thought superseded by Renaissance humanism as it was, like humanism, “fundamentally a phenomenon of the Renaissance period whose ultimate roots can be traced in a continuous development to the very latest phase of the Middle Ages.”<sup>2</sup> Fourteenth-century writers were aware of its recent origins; for Petrarch, writing in 1367, it was “the modern philosophic fashion.”<sup>3</sup> We shall see, in fact, that it coexisted with humanism throughout the Italian Renaissance and dominated certain branches of knowledge that resisted humanist intellectual tendencies.

Scholastic thought arose in the universities of the late Middle Ages and was closely associated from the first with the teaching there of theology, philosophy, natural philosophy, medicine, and law. It was marked by two broad, related tendencies: a reliance on authority and a faith in the absolute truth of knowledge gained through rigorous deductive logic. The Schoolmen accepted as authoritative the major ancient texts in the fields that most concerned them—texts like Justinian’s *Corpus iuris civilis*, Aristotle’s *Physica* and *De historia animalium*, and of course the Scriptures and Patristic writings. And the most common forms of scholastic writing were determined by their dependence on authoritative texts: the commentary on preexistent works (this would dominate the writings of Italian scholastics) and the *quaestio*, an interpretive format for reconciling the views of various authorities most brilliantly developed in the *Summae* of Thomas Aquinas.

But as this description of the *quaestio* suggests, the authorities seemed to disagree on numerous points, large and small. So the acceptance of their views necessitated an immense interpretive effort to rationalize the apparent discrepancies. The means for this effort were sought in Aristotle’s *Organon*, a comprehensive group of logical treatises recovered in its entirety only during the twelfth century. Aristotelian logic, in particular the body of syllogistic methods exhaustively analyzed in the *Organon*, thus provided the foundation for scholastic philosophy, the base on which its greatest monuments were built.

The scholastics’ deference to past authority suggests a deeper premise of their thought, one that Bouwsma has linked to the medieval vision in general. The authority of the huge and newly recovered Aristotelian corpus sprang in large part from its awesome comprehensiveness: it presented an ordered view, especially of logic, biology, and other natural philosophy. Indeed, to some medieval scholars it seemed to present a systematic exploration of the full potential of human reason itself. The appeal of such a presentation to scholastic thinkers reveals their funda-

2. Kristeller, *Renaissance Thought*, I, p. 36; see also pp. 116–17.

3. Francesco Petrarch, *On His Own Ignorance and That of Many Others*, p. 53.

mentally optimistic view of man's intellectual capabilities. The scholastic vision and the related medieval vision "assumed not only the existence of a universal order but also a substantial capacity in the human mind to grasp this order."<sup>4</sup> Many scholastic writers were confident that complete knowledge was attainable by man and indeed had already been attained by a few ancient and early Christian writers in their fields of expertise.

But if reality was closed, systematically ordered, and completely apprehensible, as the Schoolmen believed, then knowledge itself must be limited. Accepting the authority of the ancients could ultimately entail rejecting the possibility of new ideas in the disciplines they had mastered. In the debased scholastic tradition of the sixteenth century, to look ahead for a moment, this corollary was frequently followed to its logical end. The minor Aristotelian philosopher Lodovico Boccadiferro, for example, chastised a too-venturesome colleague with these words: "Most of these new opinions are false. Were they true, they would already have been adopted by one of many wise men of past ages."<sup>5</sup> In the face of the geographical, cosmological, technological, and other discoveries of the fifteenth and sixteenth centuries the scholastic deference to authority sometimes hardened into dogmatism, a turn from observation and practical experience to the security of ancient thought that Galileo would ridicule mercilessly. In an era of rapidly expanding intellectual horizons, sixteenth-century scholastics emphasized the claims of reason and theory over the imperfect conclusions drawn from observation and practice. The inability of these late scholastic thinkers to assimilate novel ideas stimulated important questions about scientific, scholarly, and artistic innovation in sixteenth-century intellectual circles and ultimately helped to provoke the first *querelles* of the ancients and moderns.<sup>6</sup>

But we have jumped ahead somewhat and must return now to the origins of humanist thought. Unlike scholasticism, humanism was native to Italian soil, a response to imported scholastic trends that seems to have been nurtured by the circumstances of Italian urban life in the late Middle Ages. The complex network of responsibilities and dependencies necessary to rule these communes and organize their commerce encouraged a pragmatic view of the uses and ends of knowledge, one embodied long before the Renaissance in a professional class of *dictatores*, notaries hired to write speeches, documents, and the like. This worldly, ad hoc use of learning sprang from an engagement with everyday concerns and human actions foreign to scholastic thinkers. It tended therefore to espouse the active life over the seclusion of the *vita contemplativa*. Its expedient pragmatism contrasted sharply

4. Bouwsma, *Venice and Republican Liberty*, p. 5.

5. Quoted from Umberto Pirotti, "Aristotelian Philosophy and the Popularization of Learning," p. 175.

6. See Hans Baron, "The *Querelle* of the Ancients and Moderns as a Problem for Renaissance Scholarship."

with the scholastic view of knowledge as a logical, hierarchical structure rising to systematic understanding.

By the fifteenth century the effects of humanist learning were felt in the Italian universities, long dominated by scholastic subjects like law, medicine, and natural philosophy. Certain scholars, soon referred to as *humanisti*, began to stress the value of the *studia humanitatis*, a group of disciplines that scholastics considered inferior to more systematic studies. The *humanisti* valued moral philosophy over Aristotelian natural philosophy and celebrated the moral teachings derived from poetry and history. They condemned what seemed to them the useless excesses of scholastic logic. And they replaced it with a new dialectic, based as much on Cicero and Quintilian as on Aristotle, that blurred the distinction between scientific demonstration and plausible argumentation and challenged the superiority of formal proof to suasive talk.<sup>7</sup> In place of the logical construction of all-embracing ontologies and the systematizing of individual disciplines, they and their nonacademic comrades like Coluccio Salutati, Leonardo Bruni, and Poggio Bracciolini, all chancellors of the Florentine republic and heirs to the *dictatores*, pursued the more modest end of swaying their fellow men to morally and politically right actions in the real world.

The importance of rhetorical persuasion to this vision is obvious. Indeed the revival and revaluation of ancient and particularly Ciceronian rhetorical practice form the cornerstone of the humanist achievement. This high regard for rhetoric grew in conjunction with a new human ontology, in which the will assumed a centrality at odds with its scholastic position as mediator between reason and the base passions. For the purposes of argument, in fact, the traditional ranking of intellect over will could even be reversed, as when Petrarch, one of the first humanists, wrote, "It is safer to strive for a good and pious will than for a capable and clear intellect. The object of the will, as it pleases the wise, is to be good; that of intellect is truth. It is better to will the good than to know the truth."<sup>8</sup> This celebration of the will as the motivator of virtuous action merged in humanists with an abhorrence of philosophy in a vacuum—of knowledge not put to good use. Already shortly after Petrarch's death Pier Paolo Vergerio united philosophy and rhetoric (and history, another source of practical instruction) in a Ciceronian linkage essential to humanist thought: "By philosophy we learn the essential truth of things, which by eloquence we so exhibit in orderly adornment as to bring conviction to differing minds. And history provides the light of experience—a cumulative wisdom fit to supplement the force of reason and the persuasion of eloquence."<sup>9</sup>

7. Lorenzo Valla and Rudolph Agricola are two of the leading figures in this shift from a syllogistic to a topical logic; see Norman Kretzmann et al., eds., *The Cambridge History of Later Medieval Philosophy*, chap. 43, and Walter J.

Ong, *Ramus, Method, and the Decay of Dialogue*, chap. 5.

8. *On His Own Ignorance*, p. 105.

9. Quoted from Benjamin G. Kohl and Ronald G. Witt, eds., *The Earthly Republic*, p. 15.

Humanist esteem for man's will, like the pragmatic humanist view of knowledge and dialectic, arose in interaction with the requisites of communal self-governance. Through the will, more than through the intellect, man's passions could be swayed and channeled to result in right action. And only thus could the special needs of the new society—to accommodate quickly changing circumstances and to persuade others to respond effectively to them—be answered. Behind the humanist exaltation of oratorical persuasion lay a recognition of the passions as dynamic forces directing human thought and action, and a felt need to control and exploit these forces.

In all this the humanist world-view resembles Bouwsma's Renaissance vision, in which the medieval excitement at man's vast intellectual capabilities gave way to a dimmer view of his ability to rationalize the world around him. The systematic, hierarchically ordered medieval ontology now seemed instead a disordered, often baffling reality, and attempts to understand it were characterized most typically by an effort to cope with "the incessant flux of things."<sup>10</sup> Humanists had little faith in the encompassing theories of scholastic thinkers. They recognized the validity of practical experience and accepted its fragmentary and unsystematic nature, albeit uneasily, as the inevitable impression of a complex reality on the imperfect human intellect. Hence they were led to make reason dependent on sense and experience, as Paolo Sarpi, a friend of Galileo and with him a late representative of the humanist tradition, explained:

There are four modes of philosophizing: the first with reason alone, the second with sense alone, the third with reason first and then sense, the fourth beginning with sense and ending with reason. The first is the worst, because from it we know what we would like to be, not what is. The third is bad because we many times distort what is into what we would like, rather than adjusting what we would like to what is. The second is true but crude, permitting us to know little and that rather of things than of their causes. The fourth is the best we can have in this miserable life.<sup>11</sup>

Because the humanists were not confident that man could explore the furthest limits of knowledge, they tended to adopt a more progressive view of human understanding and achievement than the scholastics. The ancient writers were transformed, in Eric Cochrane's words, "from a series of infallible statements or texts into individual, fallible, historically conditioned human beings." What scholastics regarded as authoritative statements humanists saw as working hypotheses that "carried with them the injunction to try them out in practice."<sup>12</sup> Or, as Petrarch expressed it, "I certainly believe that Aristotle was a great man who knew much,

10. Bouwsma, *Venice and Republican Liberty*, pp. 4–5.

11. Quoted from Bouwsma, *Venice and Republican Liberty*, pp. 519–20; Bouwsma's translation.

12. "Science and Humanism," pp. 1053–54.

but he was human and could well be ignorant of some things, even of a great many things.”<sup>13</sup> A new cultural relativism allowed at least the considerable independence of modern from ancient culture and by the sixteenth century even argued its superiority in such areas as technology (where inventions like the compass, the printing press, and gunpowder gave eloquent testimony to modern prowess). In this light we should view frequent late-*cinquecento* claims of artistic autonomy from the ancients, like these words from Jacopo Peri’s introduction to *L’Euridice* of 1600: “And therefore, just as I shall not venture to affirm that this is the manner of singing used in the fables of the Greeks and Romans, so I have come to believe that this is the only one our music can give us to be adapted to our speech.”<sup>14</sup> We shall see that Monteverdi insisted on a similar autonomy even from more recent musical authorities.

It would be wrong, however, to suggest that humanists abandoned the quest for philosophical truth in realizing the power of rhetoric and admitting the baffling diversity of society and the world. They strove instead, along with Pier Paolo Vergerio, to utilize the limited truths available to them to shape their own and others’ responses to the vagaries of life. The unity of philosophy and eloquence, not the abandonment of philosophy, was the central message of Renaissance humanism. And this Ciceronian impulse set Petrarch decisively apart from the earlier Italian *dictatores* as the spokesman for a new cultural force. As Jerrold Seigel has written:

To speak in favor of solitude was, in Petrarch’s terms, to speak as a philosopher. To accept the city and the moral values which the give and take of community life required was to speak as an orator. Petrarch’s statements moved continually back and forth between these two positions, between the claims of an abstract wisdom, and the moral standards of the everyday world. This alternation . . . grew out of his attempt to combine the two lives of the philosopher and the orator. Petrarch recognized that rhetoric and philosophy both attracted and repelled each other, and humanist culture embodied this dialectic.<sup>15</sup>

The dialectic that Seigel describes persisted in humanist culture through the sixteenth century and beyond. From the fourteenth to the seventeenth century it was not philosophy itself that the humanists disdained but the view that a systematic philosophical knowledge independent from the ethical ambiguities of daily existence was attainable and desirable.

The humanist perception of reality as fragmentary and even incoherent encouraged the reconsideration of the relationships among the intellectual disciplines and the consolidation of their differing methods and goals. This increased attention to

13. *On His Own Ignorance*, p. 74.

14. From the facsimile of the original edition, edited by Rossana Dalmonte.

15. “‘Civic Humanism’ or Ciceronian Rhetoric?,” p. 37.

questions of disciplinary autonomy was itself an anti-scholastic tendency, and in the late sixteenth century it heightened tensions between thinkers of humanist and scholastic temperament. Natural philosophy, for example, was seen by all to be governed by universal laws. Its scholastic practitioners aimed to construct necessary demonstrations of these laws, working from observed (or reported) phenomena. They distinguished their discipline, characterized by this logical search for universal truths, from lower disciplines like astronomy, which aimed only to “save the appearances” of observed phenomena through hypothetical mathematical models. But in the face of ever more exact and diverse empirical observation humanists tended to admit their meager understanding of the laws of nature. They came to a healthy acknowledgment of the even less profound understanding embodied in the supposedly authoritative ancient and medieval texts on the subject. And they searched for new investigative tools more flexible than Aristotelian logic—most notably the mathematical reasoning of lower disciplines.

History borrowed its empirical method from natural philosophy but was not, in humanists’ eyes, governed by similar immutable laws. The unpredictable actions of man, ruled as often by his passions as by his intellect, formed its subject; the teaching of flexible guidelines for shrewd and self-serving political action in present-day situations was its object. One predictable tendency of humanist historiography, then, was toward the pragmatism of Machiavelli. The early Renaissance link of history with ethics was loosened, arousing hostility among Counter-Reformation clerics.<sup>16</sup>

Poetry, so closely related to rhetoric, retained its ancient ethical aim to instruct with delight; and this aim was extended to music and the pictorial and plastic arts as their rhetorical capabilities were gradually recognized and enhanced. But the lessons of the new historiography were not lost on these arts. They were seen with growing clarity to embody the changing premises and aspirations of the cultures that produced them. Therefore they were guided by cultural relativism rather than eternal principles. Their means to realize their ethical ends changed along with their audience.

This working characterization of the humanist view obviously reaches beyond the notion, still sometimes met with in historical (and especially musicological) writing, of humanism as the revival, study, and translation of the Greek and Roman classics.<sup>17</sup> The careful study of ancient texts was, to be sure, the starting point of many Renaissance humanists. But close textual study was not reserved for the

16. See Bouwsma, *Venice and Republican Liberty*, pp. 304–5, and below, chap. 10.

17. In this I follow all the Renaissance historians cited above in n. 1, among others. Even Kristel-

ler, while advocating a limited definition of humanism, hints at its much broader cultural implications; see especially *Renaissance Thought, I*, pp. 17–23, 98–99.

pursuit of their goals and interests. The philological techniques that helped humanists to master, for example, Cicero's eloquent Latin style could serve thinkers of scholastic temperament equally well. An obvious case in point is the Florentine Platonist Marsilio Ficino (1433–99). He employed humanist scholarly techniques—so skillfully, indeed, that his Latin translations of Plato and the Neoplatonists remained in use until the nineteenth century. But he employed them in “the construction of abstract systems of thought which, although different in detail from the scholastic systems of earlier generations, reflect much the same vision of reality.”<sup>18</sup> By the sixteenth century as many thinkers of scholastic as of humanist temperament, perhaps, were careful students of ancient texts.

And, more generally, humanist and scholastic perceptions merged in complex and often contradictory ways in most thinking individuals of the period. Sixteenth-century Italian culture was, once again, a strikingly eclectic culture. Even Aristotle could be appreciated and exploited from humanist as well as scholastic perspectives, in mixtures of varying proportion with Plato, the Neoplatonists, ancient rhetoricians, and Christian writers.<sup>19</sup> We should resist the temptation to label individuals “humanist” or “scholastic,” although we may perceive a leaning to one or the other of these idealized (and necessarily reified) extremes in their words or actions. The union of antithetical impulses even in individuals reflects the potency of the cultural forces by which thinking Italians of the late Renaissance were, in Bouwsma's phrase, “divided against themselves.”

Several broad developments joined in the sixteenth century to intensify the rivalry of these forces. As noted above, the stunning expansion of the printing industry, and the concomitant vast proliferation of ancient and modern viewpoints on countless subjects, fostered eclecticism and reinforced both humanist and scholastic views according to individual temperament. A technological revolution, of which the invention of movable type was one aspect, challenged the superiority of the ancients in many fields, encouraged a pragmatic view of the applications of knowledge, and seemed to legitimize a progressive epistemology. Voyages of discovery further exposed the limitations of ancient knowledge, and weakened European man's traditional notions of his central place in the world. At the same time, finally, religious struggles throughout Europe struck at long-held conceptions of man's relation to God.

These developments nurtured the particularistic, fragmented view of reality,

18. Bouwsma, *Venice and Republican Liberty*, p. 43, and “Renaissance and Reformation,” pp. 141–42. George Holmes persists in characterizing Florentine Platonism as “humanist” even though he perceives its close relationship to scholasticism; see *The Florentine Enlightenment, 1400–1500*, pp. 243, 265–66.

19. See Charles B. Schmitt, *Aristotle and the Renaissance*. An interesting and by no means isolated example of such syncretic thought is the Platonic primer of the Florentine Francesco de' Vieri detto il Verino secondo, *Vere conclusioni di Platone conformi alla Dottrina Christiana, et a quella d'Aristotile* (Florence, 1590).

and the pessimistic estimation of man's ability to comprehend it, of the Renaissance vision. But at the same time, perhaps inevitably, they fostered a desire for a fuller comprehension of reality or a reality more fully comprehensible—for the universal order of the medieval vision. In Italy, attempts to regain this order and rationalize the fragmented intellectual, social, and religious structures of sixteenth-century life sometimes relied on authoritarian dogmatism, a coercive intellectual force descended from an earlier, healthier scholastic reliance on authorities. Such coercion is obvious in the actions of the post-Tridentine Catholic church and more subtly evident in the insistent Aristotelianism of much secular thought after midcentury. Thinking Italians in these years must have faced persistent demands for intellectual orthodoxy.

Ultimately these demands combined with other forces to snuff out the last vital flames of humanism in Italy, to break the bond humanists had forged between eloquence and meaningful human thought and action, and to leave behind a post-Renaissance conception of rhetoric as virtuosic word manipulation and empty display. But this is a later development, one I will examine in my final chapter. Around 1600, humanist tendencies lived on in uneasy coexistence with late outgrowths of scholasticism. In the remainder of this chapter I will trace these conflicting views in scientific and artistic polemics involving three Italians of humanist temperament.

### Galileo Galilei

"To call Galileo a humanist may be something of an exaggeration," Eric Cochrane has written. "Yet without the background of humanism, Galileo's accomplishment would be incomprehensible. . . . he can truly be called, if not the last of the humanists, at least a faithful heir of the humanist tradition."<sup>20</sup> In the university professors whom he antagonized from the first years of his career, in the church officials who eventually condemned his views, and even in his only-partly-successful efforts to grapple with his own deeply held preconceptions, Galileo Galilei, heir of the humanist tradition, repeatedly faced the challenge of late scholastic thought. His long struggle to affirm what we may call, with Arthur O. Lovejoy, "a change of taste in universes" provides one of the richest examples of the conflict of humanist and scholastic tendencies around 1600. Its richness arises from Galileo's novel approach to natural philosophy, a discipline that for centuries had been a stronghold of scholastic method and Aristotelian authority. It lies in the subject matter itself, which cut to the heart of man's conceptions about the world around him and could easily overstep the boundary between the physical and the metaphysical,

20. "Science and Humanism," p. 1057.

treading on the inviolable toes of scriptural assertion and theological doctrine. And it springs not least from the brilliant, polemical eloquence that Galileo brought to his task, an essentially humanist persuasive force that silhouettes with stark clarity the positions involved and their conflicting premises.<sup>21</sup>

His first teacher of mathematics, Ostilio Ricci, imparted to Galileo a utilitarian view of the discipline, in which mathematics was regarded as a tool by which man might deepen his knowledge of nature and exploit its principles to his advantage. Ricci was a professor in the Accademia del Disegno, the most pragmatic of late-sixteenth-century Florentine academies. He saw in mathematics a practical science that could aid human activities as diverse as military engineering, architecture, and painting.<sup>22</sup> Many of Galileo's early studies, following those of his teacher, were technological rather than theoretical. They aimed at the invention of useful mathematical devices such as a balance to measure specific gravity (1586), about which Galileo wrote his first scientific treatise, and a "geometric and military compass" (1597), widely used throughout Europe soon after its invention. Nor did Galileo forsake this close bond of science and technology in his later years. His discovery of the moons of Jupiter in 1610 suggested to him not only basic revisions of the prevailing view of the cosmos but also a technique for the measurement of terrestrial longitude; he continued to perfect this technique as late as 1636. For Galileo mathematics allowed man to conceptualize precisely, and thus control in some small degree, his world.

Galileo soon extended this dominion of mathematics to the heavens, by a process of terrestrial-to-extraterrestrial analogy rarely absent for long from his cosmological writings. Not until 1623, in *Il sagggiatore*, would he write the famous characterization of the universe as a book "scritto in lingua matematica." But the analogy of super- and sublunar realms, so scandalous to the Aristotelian natural philosophers of the day, seemed inevitable to the *galileisti* as early as 1610, when Galileo's telescopic observations—of mountains on the moon, spots on the sun, moons around Jupiter, and so on—shattered the already weakened myth of the unalterable perfection of the heavens.

The assertion of mathematics as the only language adequate for the study of natural philosophy is Galileo's signal achievement.<sup>23</sup> In his day it took pride of place

21. My guides to Galileo's thought, aside from his own works, have been Luigi Bulferetti, "Galileo e la società del suo tempo"; Ernst Cassirer, "Galileo's Platonism"; Eric Cochrane, "The Florentine Background of Galileo's Work"; Cochrane, "Science and Humanism"; Stillman Drake, ed. and trans., *Discoveries and Opinions of Galileo*; Maurice A. Finocchiaro, *Galileo and the Art of Reasoning*; Eugenio Garin, *Science and Civic Life in the Italian Renaissance*; Ludovico Gey-

monat, *Galileo Galilei*; T. F. Girill, "Galileo and Platonistic Methodology"; Alexandre Koyré, "Galileo and Plato"; Erwin Panofsky, *Galileo as a Critic of the Arts*; Giorgio de Santillana, *The Crime of Galileo*; and William R. Shea, *Galileo's Intellectual Revolution*.

22. Geymonat, *Galileo*, p. 7.

23. Shea convincingly argues this point in *Galileo's Intellectual Revolution*.

as his most aggressive challenge to Aristotelian orthodoxy in the sciences. Traditional natural philosophy, as we have seen, used logical rather than mathematical methods of analysis. Aristotle himself had had little patience with mathematics, and his modern supporters were inclined to the same attitude. As Lodovico delle Colombe, an early opponent of Galileo, indignantly wrote, "In Aristotle's time this was considered a schoolboy's science, learned before any other, . . . and yet these modern mathematicians solemnly declare that Aristotle's divine mind failed to understand it, and that as a result he made ridiculous mistakes." Galileo scribbled his own indignation in the margin of Colombe's treatise: "And they are right in saying so, for he committed many serious errors and mathematical blunders, though neither so many nor so silly as does this author every time he opens his mouth on the subject."<sup>24</sup>

Galileo's esteem for mathematics, then, quickly brought him into direct conflict with Aristotle, the foremost authority on natural philosophy since the thirteenth century, and especially with Aristotle's more rigid sixteenth- and seventeenth-century exegetes. But the conflict involved more than the role of mathematics in natural philosophy. It arose also because Aristotle's science was an empirical one, aspiring to the logical analysis of observed phenomena. Ptolemaic astronomy, with its geocentric world order and injunction to "save the appearances," likewise attempted to explain why things looked the way they did. The idea that appearances might mislead—that they might hide a different, less tractable reality, explicable only in part and only through a combination of close observation and mathematical reasoning—was foreign to both systems of thought. It also contradicted the occasional passages that seemed to support the geocentric scheme in an authoritative text of another sort: the Bible. So Galileo's championing of the Copernican heliocentric system did more than place him in opposition to the ancient philosophers. It pitted him against an embattled church that had recently reaffirmed its medieval vision in order to buttress its authority. And, in the eyes of many, it pitted him against the Word of God.

Galileo's response to those who accused him of subverting established authority was presented most explicitly in two of his works, a long letter to the grand duchess of Tuscany of 1615 on the use of biblical quotations in scientific matters, and *Il saggiaiore* of 1623, a scathing defense of his views on the nature of comets from the attack of the Jesuit astronomer Horatio Grassi.<sup>25</sup> Galileo was ever scornful of those who revered authorities to the point of belittling their own sense experience. Addressing Grassi under his pseudonym of Lothario Sarsi in *Il saggiaiore*, he

24. Quoted from Drake, *Discoveries*, p. 223.

25. See Galileo Galilei, *Lettere*, pp. 123–61, and *Il saggiaiore*. The letter and parts of *Il saggiaiore* are translated in Drake, *Discoveries*. The letter is a revised and much expanded version of one to

Benedetto Castelli of 21 December 1613 on the same subject (see *Lettere*, pp. 102–9); for a generally convincing analysis of its rhetorical strategies and flaws see Jean Dietz Moss, "Galileo's *Letter to Christina*."

wrote, "In Sarsi I seem to discern the firm belief that in philosophizing one must support oneself upon the opinion of some celebrated author, as if our minds ought to remain completely sterile and barren unless wedded to the reasoning of some other person. . . . Well, Sarsi, this is not how matters stand. Philosophy is written in this grand book, the universe, which stands continually open to our gaze."<sup>26</sup> For physical propositions capable of experimental confirmation no recourse to past authority was necessary: "I cannot but be astonished that Sarsi should persist in trying to prove by means of witnesses something that I may see for myself at any time by means of experiment. Witnesses are examined in doubtful matters which are past and transient, not in those which are actual and present. A judge must seek by means of witnesses whether Peter injured John last night, but not whether John was injured, since the judge can see that for himself."<sup>27</sup>

Since modern technology offered subtler means of observation and experiment than were available to the ancients, such as the telescope, Galileo argued that we should not hesitate to contradict authorities when new evidence demands it. In the *History and Demonstrations Concerning Sunspots* of 1613, therefore, Galileo attacked modern Aristotelians, not the philosopher himself: "They go about defending the inalterability of the sky, a view which perhaps Aristotle himself would abandon in our age." He bridled at the poor estimation of modern intellects that seemed to lie behind the Peripatetic position and expressed a clear belief in the progressive growth of human knowledge: "We abase our own status too much and do this not without some offense to Nature (and I might add to divine Providence), when we attempt to learn from Aristotle that which he neither knew nor could find out, rather than consult our own senses and reason. For she, in order to aid our understanding of her great works, has given us two thousand more years of observation, and sight twenty times as acute as that which she gave Aristotle."<sup>28</sup>

But if Galileo's estimation of human intellect was in absolute terms optimistic, his view of it relative to the complexities of the universe was not. Tempering his optimism, that is, was a strong humanist conviction that man at best could only struggle inadequately to understand the workings of a seemingly fragmented and inscrutable reality. He urged philosophers to admit their ignorance in certain matters rather than clutter their treatises with meaningless catchwords like *influence*, *sympathy*, and *antipathy*.<sup>29</sup> And in frequently admitting his own ignorance he freed himself to speculate on topics that for technical reasons could not be subjected to experimental corroboration until long after his death, devising, for example, an experiment to measure the speed of light. The enchanting Parable of Sounds in *Il saggiatore* has as its lesson the humility of man's intellect and as its subject a man

26. Drake, *Discoveries*, pp. 237–38; see Galileo, *Il saggiatore*, p. 38.

27. Drake, *Discoveries*, p. 271; see Galileo, *Il saggiatore*, p. 247.

28. Drake, *Discoveries*, pp. 141, 143; see Galileo, *Lettere*, pp. 89–90, 93–94.

29. Galileo, *Il saggiatore*, p. 60; Drake, *Discoveries*, p. 241.

whose knowledge, through long experience, "was reduced to diffidence, so that when asked how sounds were created he used to answer tolerantly that although he knew a few ways, he was sure that many more existed which were not only unknown but unimaginable."<sup>30</sup> Because of his recognition of the limits of human knowledge there was, as William R. Shea points out, "a tension in Galileo's mind between the certitude he claimed for geometrical demonstrations and his awareness of the hypothetical nature of his own speculations. . . . Galileo realized that the human mind could not penetrate the secrets of nature unless it abandoned the preposterous philosophical claim to exhaustive knowledge."<sup>31</sup> This philosophical claim, we have noted, was a characteristic aspiration of the scholastic temperament.

The message of the Parable of Sounds is curiously similar to the reasons for treating the Copernican system as no more than hypothetical that Maffeo Barberini, the new Pope Urban VIII, apparently urged on Galileo in the spring of 1624.<sup>32</sup> If God was capable of things beyond human imagination—a proposition any true Catholic must grant—then who could say that He had not placed the earth in the center of the universe, in spite of what seemed convincing physical evidence to the contrary? Here in a nutshell was the dilemma of the scientist in a world ruled by faith. Galileo had attempted to address this problem in his *Letter . . . Concerning the Use of Biblical Quotations*, a response to those who saw his arguments for the motion of the earth around the sun as contrary to Holy Scripture. His argument there had rested on Augustine's distinction between matters of reason and matters of faith and on the time-honored tradition of nonliteral biblical exegesis. "I should judge," wrote Galileo, "that the authority of the Bible was designed principally to persuade men of those articles and propositions which, surpassing all human reasoning, could not be made credible by science, or by any other means than through the very mouth of the Holy Spirit."<sup>33</sup> In matters of reason, observed phenomena should guide us in the interpretation of relevant scriptural passages, not vice versa.

Yet in combatting interpretations of Scripture that opposed manifest reason and sense experience Galileo returned to the limitations of human understanding:

I should think it would be the part of prudence not to permit anyone to usurp scriptural texts and force them in some way to maintain any physical conclusion to be true, when at some future time the senses and demonstrative or necessary reasons may show the contrary. Who indeed will set bounds to human ingenuity? Who will assert that everything in the universe capable of being perceived is already dis-

30. Drake, *Discoveries*, p. 258. For the Parable of Sounds see pp. 256–58 and Galileo, *Il saggiaiore*, pp. 126–28.

31. *Galileo's Intellectual Revolution*, pp. 90–91.

32. See Finocchiaro, *Galileo and Reasoning*, pp. 10–11, and Santillana, *The Crime of Galileo*, pp.

171–78. Barberini seems to have discussed these views with Galileo already in 1616; see Santillana, pp. 135–36n.

33. Drake, *Discoveries*, p. 183; see Galileo, *Lettere*, p. 131.

covered and known? Perhaps those that at another time would confess quite truly that “those truths which we know are very few in comparison with those which we do not know”?<sup>34</sup>

In an ambivalent formulation, Galileo celebrated human ingenuity even as he despaired of its ultimate ability to decipher the book “which stands continually open to our gaze.” And in spite of his pessimism Galileo devoted his life to the search for truths he did not know. His yearning for a systematic conceptualization of the world suggests why, in his *Dialogue Concerning the Two Chief World Systems*, he could only bring himself to pay lip service to the pope’s arguments against the conclusive reality of the Copernican model—arguments similar to views he had expressed many times before. Galileo’s vision was, in Shea’s words, “the great vision of a science in which the real is described by the ideal, the physical by the mathematical, matter by mind.”<sup>35</sup> He needed, finally, to transcend sense experience and reach a level of pure intellect, of reality framed in elegant mathematical models. So the yearning for systematic simplicity led Galileo to advance a theory of the tides as the linchpin in his confirmation of the Copernican system—a theory riddled with weaknesses that are obvious to any objective observer of tidal phenomena but that Galileo ignored.

In its transcendent intellectualism Galileo’s world-view is, not incidentally, Platonic; his science “was not so much an experimental game as a Platonic gamble.”<sup>36</sup> But his pragmatic conjunction of mathematics with technology, his view of authorities as purveyors only of working hypotheses, his belief in the progressive enrichment of knowledge, and his ambivalent recognition of the limitations of human intellect—all these mark Galileo as a “faithful heir of the humanist tradition.”

Humanist also, finally, are Galileo’s view that his findings should be accessible to the literate Italian public and the means he seized on to realize this view. Galileo’s mature works are cast as dialogues and letters—humanist forms that allow a rhetorical emphasis and dialectical flexibility not found in the scholastic treatises of the university philosophers.<sup>37</sup> And in fact the quick triumph of *Il saggiaiore* owed more to its masterful polemical rhetoric and sharp-tongued wit than to the scientific arguments it advanced. Galileo’s rhetorical prowess in live disputation was almost legendary, and the discomfiture it caused his opponents surely contributed no little part to the implacable ill will some of them bore him. We can measure its positive effect in a letter to Galileo from one of his loyal supporters, the Florentine poet and churchman Giovanni Ciampoli: “It seems impossible to me that one should frequent you and not love you. There is no greater magic than the beauty of virtue and

34. Drake, *Discoveries*, p. 187; see Galileo, *Lettere*, p. 135.

35. *Galileo’s Intellectual Revolution*, p. 185.

36. *Ibid.*, p. 186.

37. Cochrane, “Science and Humanism,” pp. 1055–57. See also Cochrane, “The Florentine Background,” pp. 130–31.

the power of eloquence; to hear you is to be convinced by your truth, and whatever I can do will always be at your service.”<sup>38</sup>

The language of Galileo’s works is as important as their form. Most of them are written not in Latin, the universal language of natural philosophy before Galileo’s time, but in Tuscan Italian, accepted since the days of Pietro Bembo as the common literary language of the peninsula. As he explained in a letter of 1612, Galileo wrote in the vernacular so that all literate Italians could read of his discoveries and theories. He wrote in Italian to break down the barrier between the universities, storehouses of knowledge, and the growing class of educated Italians who had few connections with them. Through his works, he hoped, these readers would “see that just as nature has given to them, as well as to philosophers, eyes with which to see her works, so she has also given them brains capable of penetrating and understanding them.”<sup>39</sup> Cochrane’s “humanist principle that knowledge is sterile unless it is communicated, that demonstration is useless unless it persuades,” rarely found such an able and committed champion.<sup>40</sup>

Behind all these characteristics of Galileo’s works—their language, style, and form—lies a last, basic humanist impulse. This is a fascination with written language itself, with the meeting of far-flung minds and dialectic of differing views it enables and the undying legacy it conveys to succeeding generations. In Sagredo’s homily on the ingenious inventions of man at the close of the First Day of the *Dialogue*, writing takes pride of place. Sagredo’s words may serve as a testament to the undimmed cogency with which Galileo himself speaks to us across four centuries:

But surpassing all stupendous inventions, what sublimity of mind was his who dreamed of finding means to communicate his deepest thoughts to any other person, though distant by mighty intervals of place and time! Of talking with those who are in India; of speaking to those who are not yet born and will not be born for a thousand or ten thousand years; and with what facility, by the different arrangements of twenty little characters upon a page! Let this be the seal of all the admirable inventions of mankind and the close of our discussions for this day.<sup>41</sup>

### Giambattista Guarini

If we can trust the account of Giambattista Guarini’s great-grandson, it was in 1605 that Cardinal Robert Bellarmine—the same Bellarmine who eleven years later would warn Galileo of the error of his Copernican leanings—complained in public

38. Quoted from Santillana, *The Crime of Galileo*, p. 96.

39. From his letter to Paolo Gualdo of 16 June 1612; quoted from Drake, *Discoveries*, p. 84.

40. “Science and Humanism,” p. 1055.

41. Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*, p. 105. For the Italian, see the facsimile of the first edition of 1632, *Dialogo . . . sopra i due massimi sistemi del mondo tolemaico, e copernicano*, p. 98.

that *Il pastor fido* was more harmful to Catholic morals than Protestantism itself.<sup>42</sup> In Guarini's sensual *tragicomedia pastorale* Bellarmine took on a formidable adversary. *Il pastor fido* had attracted a large and enthusiastic following already in the five years between its completion and its first publication in 1590, and by 1601 it had seen some twenty editions. Its popularity, not only in Italy but in translation throughout Europe, would endure well into the eighteenth century. But from the beginning it labored under charges of stylistic and moral impropriety.

The charges were first leveled, while *Il pastor fido* was still circulating in manuscript copies, in two small treatises of 1586 and 1590 by Giason Denores. They elicited a spirited if pseudonymous defense from Guarini, published in *Il verrato* and *Il verato secondo* of 1588 and 1593, and thus initiated the last great literary polemic of the sixteenth century. The strictly literary issues involved in this quarrel have been detailed elsewhere.<sup>43</sup> Here we shall attempt to characterize the counterpoint of humanist and scholastic inclinations that imbues these issues with a broader cultural resonance and links them to the polemics of Galileo and, we shall see, Monteverdi.

Bellarmino's moral judgments are not irrelevant to the polemic, for Denores was a professor of moral philosophy at the University of Padua, and his commitment to the ethical ends of poetry is evident from the full title of his treatise of 1586: *Discorso di Iason Denores intorno à que' principii, cause, et accrescimenti, che la comedia, la tragedia, et il poema heroico ricevono dalla philosophia morale & civile, & da' governatori delle repubbliche*.<sup>44</sup> We have seen that moral philosophy was a cornerstone of the educational program of the early humanists, a discipline that allowed them to conceptualize human actions in an otherwise bewildering social setting. But Denores's ethics was no such flexible response to a changing world. It offered instead a set of static, unbending moral guidelines (and in this it found expression also in his *Panegirico* of Venice of 1590).<sup>45</sup> Denores combined these moral strictures with a narrowly orthodox reading of Aristotle's *Poetics* to construct a yardstick by which the utility and success of any poem might be judged. Aristotle spoke only of three genres, the three named in the title of Denores's *Discorso*: tragedy, comedy, and epic. So Guarini's new genre of tragicomedy could not help but be a "mostruoso & disproportionato componimento."<sup>46</sup> Worse, since Denores believed that Aristotle spoke of all genres that could provide moral edification, tragicomedy must be a genre "without any useful end."<sup>47</sup> For Denores, poetic theory constituted an appeal to the eternal truths voiced by earlier authorities.

42. Reported in Nicolas J. Perella, *The Critical Fortune of Battista Guarini's "Il pastor fido,"* pp. 28–29. On Bellarmine's warning of Galileo see Santillana, *The Crime of Galileo*, chap. 6.

43. See in particular Bernard Weinberg, *A History of Literary Criticism in the Italian Renaissance*, chaps. 13, 21, and Perella, *The Critical Fortune*, chap. 1.

44. Perella, *The Critical Fortune*, p. 10.

45. See Bouwsma, *Venice and Republican Liberty*, p. 269.

46. Quoted from Weinberg, *A History of Literary Criticism*, p. 1076.

47. Quoted from Weinberg, *A History of Literary Criticism*, p. 1075.

Guarini rejected Denores's conclusions and their underlying premises. He argued that his tragicomedy was not without a useful end, though this was not one Aristotle could have foreseen. It was, in Guarini's words, "to purge the mind from the evil affection of melancholy."<sup>48</sup> Aristotle's tragedy had aimed instead to purge pity and terror in its spectators—a strange formulation from the *Poetics* that Guarini, along with many other literati of his day, worked hard to interpret. Guarini concluded that such purgation was no longer needed, for "just as the age changes, habits change. . . . what need have we today to purge terror and pity with tragic sights, since we have the precepts of our most holy religion, which teaches us with the word of the gospel? Hence these horrible and savage spectacles are superfluous."<sup>49</sup> The appreciation of historical change evident in these words recalls Galileo's progressive views on technology and the growth of knowledge.

Guarini perceived a clear difference between artistic judgments and physical propositions. He saw that in art, unlike natural science, permanent truths are few and of such general scope that there is room for much adaptation and variety within them. So art should develop, often in unpredictable ways, along with the tastes and customs of its audience: "Particular species, depending upon the will of the artists, cannot be regulated in the same way in which natural effects are regulated; these have their necessary and permanent principles, always in the same state. We should be in a bad way if philosophers were obliged to guess in advance all the combinations that the arts can produce."<sup>50</sup> Just as Guarini saw little need for tragic purgation in his time, so he realized that later generations might find the artworks of his day unsuitable or imperfect: "The arts . . . do not have fixed perfection and magnitude, and we esteem some object as excellent which our descendants will perhaps regard as imperfect."<sup>51</sup> In the quarrel between ancients and moderns that lay behind the polemic over *Il pastor fido*, Guarini sided decisively with the moderns. For him, as Bernard Weinberg noted, "it is the taste of the times that explains and legitimizes the birth of modern tragicomedy."<sup>52</sup>

For Denores, however, Guarini's "will of the artists" was not enough to justify a monstrous creation like *Il pastor fido*. In his *Apologia contra l'auttor del verato* of 1590, Denores affirmed the authority of theory and universal precepts over practice and particular artists and works of art: "I distinguish good poems from bad ones with the measure of art, and not art with the measure of poems; those who observe it are the perfect ones and those who do not observe it are the imperfect ones."<sup>53</sup>

48. From Guarini's *Compendio della poesia tragicomica* (1601); translated in Allan H. Gilbert, ed., *Literary Criticism*, p. 522. On Guarini's idea of purgation see also Baxter Hathaway, *The Age of Criticism*, pp. 268–73.

49. From the *Compendio*; translated in Gilbert, *Literary Criticism*, p. 523.

50. Quoted from Weinberg, *A History of Literary Criticism*, p. 682.

51. Quoted from Weinberg, *A History of Literary Criticism*, p. 684.

52. *Ibid.*, p. 1086; see also p. 1104.

53. Quoted from Weinberg, *A History of Literary Criticism*, p. 1084.

Guarini's response was that precepts could be violated when necessary to attain a desired effect. He argued this position, in *Il verato secondo*, from an analogy of poetry with oratory: "To speak contrary to the precepts is not always to speak without art, for since the speaker has no other end than to persuade, in whatever way he does it, and since he knows that sometimes he cannot do it in the ordinary way . . . , he is obliged to transgress the ordinary rules that the rhetoricians prescribe to us. But what he does without art is nevertheless a very great art."<sup>54</sup> The practical needs of effective expression, for Guarini, took precedence over theoretical precepts. And the precepts themselves could be deduced only from artworks; the works came first. According to Guarini this was Aristotle's end in the *Poetics*: "to reduce all poems that he found in his time to universal rules, and not to go about wondering about what particular kinds of poems the following centuries might be able to derive from those same rules."<sup>55</sup> Weinberg has expressed Guarini's position thus: "Practice and precepts are in constant interaction, with no fixity or permanence on either part."<sup>56</sup> (Significantly, when Guarini had recourse to the ancients to help legitimize his procedures, it was most often not to theorists and philosophers that he turned but to the playwrights themselves—to Sophocles, Plautus, Terence, and others.) The fluid interplay of practice and theory might result in artworks different from those of the past, but for Guarini these new works did not therefore sacrifice the *ragionevolezza* essential, for Guarini and Denores alike, to respectable human action.

Guarini devoted much energy to the defense of the mixed nature of his tragicomedy—its mingling of comic and tragic actions and characters and of magnificent and elegant styles. Such mixture—*temperamento* is Guarini's preferred term—played an important role in sixteenth-century literary theory from the time of Pietro Bembo's *Prose della volgar lingua* (published in 1525). Bembo had perceived a joining of *piacevolezza* and *gravità* in the verse of Petrarch and prose of Boccaccio and had established the resulting *variazione* as a requisite of good Tuscan style. Guarini's defense of his mixture of styles relied on the allowance of such procedures by the ancient stylists Demetrius and Hermogenes, but he justified his mixture of actions and characters on different grounds. Here verisimilitude was the point:

With respect to actions that are great and not great, I cannot see for what reason it is unfitting that they should appear in one same plot, not entirely tragic, if they are inserted with judgment. Can it not be that amusing events intervene between serious actions? Are they not many times the cause of bringing perils to a happy con-

54. Quoted from Weinberg, *A History of Literary Criticism*, pp. 1085–86.

55. Quoted from Weinberg, *A History of Literary Criticism*, p. 682.

56. *Ibid.*, p. 1104.

clusion? But then, do princes always act majestically? Do they not at times deal with private affairs? Assuredly they do. Why, then, cannot a character of high importance be presented on the stage at a time when he is not dealing with important matters?<sup>57</sup>

In real life, Guarini wrote, variety and mixture are common. Nature joins the horse and the ass to create a mule, and copper and tin to create bronze. Musicians join various sounds, painters various colors. And in politics two types of government, “the power of the few and the power of the masses,” are joined to form the republic. “But in the republic are not the citizens human persons and the acts of government human operations? If these, that work practically, can be mixed, cannot the art of poetry do it in those things that are done for sport? . . . Why cannot poetry make the mixture if politics can do it?”<sup>58</sup>

Thus Guarini saw in *Il pastor fido*—a poetic drama set in a far-off Arcadia where shepherds spoke ornate periods and honor “was not as yet the Tyrant of our minds”<sup>59</sup>—a mirror of the varied reality he perceived around him. He defended his play using the premises of a world-view different from Denores’s, a humanist view that recognized cultural complexity and accepted the vagaries of historical change. Perhaps, indeed, it was just this unsettling humanist vision that bred the melancholy *Il pastor fido* aimed to dispel.

### Claudio Monteverdi

In 1600 the Bolognese music theorist Giovanni Maria Artusi published a dialogue entitled *L’Artusi overo delle imperfettioni della moderna musica*. Here, in the midst of lengthy discussions of musical modes, proportions, and tuning systems, the interlocutors Luca and Vario examined and condemned passages from three madrigals in a novel style that Luca had heard the evening before. Nine short excerpts from two of these madrigals were included as examples in the discussion, but they were printed without their texts, and their composer was not named. Not until 1603 did the musical public at large learn his identity: in that year one of the pieces criticized in *L’Artusi* appeared in the *Quarto libro de madrigali* of Claudio Monteverdi.

The polemic that grew out of Artusi’s attack lasted until 1608 and eventually involved Monteverdi himself, his brother, Giulio Cesare Monteverdi, and a music lover writing under his academic pseudonym l’Ottuso whose letters in defense of

57. From the *Compendio*; translated in Gilbert, *Literary Criticism*, p. 508.

58. From the *Compendio*; translated in Gilbert, *Literary Criticism*, p. 511.

59. From Richard Fanshawe’s translation of 1647; see Giambattista Guarini, *Il pastor fido*, p. 323.

Monteverdi Artusi answered in his *Seconda parte dell'Artusi* of 1603.<sup>60</sup> Once again, the conflicting premises behind the quarrel reflect clearly the fundamental differences of humanist and scholastic attitudes in late-*cinquecento* culture. They involve such familiar questions as the effects of historical change, the relation of past authority to present action, and the connection of theory to practice.

These conflicts were exacerbated, however, in a way that we have not seen in the polemics over science and literature discussed above, by the ambivalent place of music in sixteenth-century thought and the resulting division among musical thinkers.<sup>61</sup> On one side stood the theorists, heirs to the medieval (and scholastic) placement of music among the *quadrivium* of mathematical sciences, which included arithmetic, geometry, and astronomy as well. Their position was supported by the large body of ancient music theory that had been edited and published during the sixteenth century. In their view and that of their ancient predecessors extending back to Pythagoras, the rules of musical practice could be deduced from nature itself through a careful mathematical study of harmonic proportions. Such rules, once logically established, would be immutable, and their application would lead to a perfect musical practice, to which no refinements could be added. Many late-sixteenth-century theorists, the Venetian Gioseffo Zarlino most prominent among them, thought that just such a practice had been achieved by the generations of polyphonists following Josquin. For Artusi, who had studied with Zarlino, composers like Adriano Willaert and Cipriano de Rore marked the apex of modern musical practice.

Opposed to the theorists's view was another conception of music, less rigorous and less dependent on traditional academic definitions of the discipline. Its proponents tended to ally music with poetry and, by extension, with rhetoric. They were fascinated by the miracles supposedly wrought by ancient musicians, but since only a few, inscrutable fragments of ancient music had survived, they remained unfettered by the authority of ancient practice and open to notions of stylistic

60. For an admirable summary of the musical issues of the quarrel see Claude V. Palisca, "The Artusi-Monteverdi Controversy." All the surviving documents of the polemic have been reprinted in facsimile. Artusi's *L'Artusi* (1600), *Seconda parte dell'Artusi* and *Considerationi musicali* (1603), and *Discorso secondo musicale*, published in 1608 under the pseudonym Antonio Braccino da Todì, are included in *L'Artusi ovvero delle imperfezioni della moderna musica*, ed. Giuseppe Vecchi. Artusi's first *Discorso*, probably from 1606 or 1607, has not survived. Monteverdi entered the fray with a short foreword to his *Quinto libro de madrigali* of 1605, on which Giulio Cesare composed a gloss, the *Dichiaratione della lettera stam-*

*pata nel Quinto libro de suoi madrigali*, that was appended to Claudio's *Scherzi musicali* of 1607. Both are reproduced in Claudio Monteverdi, *Tutte le opere*, vols. 5, 10. For English versions of most of Artusi's attack on Monteverdi in *L'Artusi*, of Monteverdi's foreword, and of Giulio Cesare's *Dichiaratione*, see Oliver Strunk, ed. and trans., *Source Readings in Music History: The Baroque Era*, pp. 33–52.

61. The following paragraphs advance a reified view of these notions. It is meant to serve as a starting point for the discussion of Monteverdi and Artusi, not to provide a conceptual scheme by which all sixteenth-century theorists and musicians might be easily categorized.

change through history. They viewed music above all as an expressive art, reflecting in this the high humanist regard both for the passions themselves, as determinants of human actions, and for the artist's ability to arouse these passions. And they occasionally concluded, as Guarini had concluded about rhetoric and literature, that "to speak contrary to the precepts is not always to speak without art . . . since the speaker has no other end than to persuade."

The tendencies of this musical humanism are especially apparent in the stylistic innovations for purposes of more effective poetic expression of many sixteenth-century madrigalists and early-seventeenth-century monodists. And it was these composers—Giaches de Wert, Luca Marenzio, Luzzasco Luzzaschi, Peri, even Rore, whose extraordinary versatility allowed him to find a place in both the scholastic and humanist camps—that Monteverdi included in his famous Second Practice. In this new practice, the composer's first concern was expressive force, not structural perfection. Therefore, in Giulio Cesare's famous formulation, the words are "the mistress of the harmony and not the servant."<sup>62</sup> Monteverdi never denied the excellence of the mid-sixteenth-century *Prima Pratica* of Willaert and others, but he insisted that his own music should not be bound by it.

Artusi's reasoning in his publications of 1600 and 1603 reveals the limitations of much late scholastic thought. There were for him only two justifications for human actions, the authority of past masters and logical or mathematical demonstration. Faced with Monteverdi's use of a melodic diminished fourth, Artusi asked, "Does he have the permission of nature and art thus to confound the sciences? To uphold things done in this manner we need one of two things: either the authority of past writers (and this is not to be found) or demonstration—to this task [Monteverdi] must set himself."<sup>63</sup> Since, in Artusi's view, "every artificer is obliged to account for the things he does in his art," Monteverdi had to defend his novel techniques through rational proofs.<sup>64</sup>

Artusi gave many examples in the two parts of *L'Artusi* of the sort of demonstration he expected from Monteverdi. Most of his discussions, like that on the proper tuning system for modern music, depended on closely argued mathematical reasoning—which underlined his view of music as a science of numbers but left him helpless to address Monteverdi's central concern of expressive forcefulness. When compelled to address this issue by the first of l'Ottuso's letters, he retreated adroitly behind a display of degenerate scholastic logic. l'Ottuso claimed that Monteverdi's novel music (*modulatione*) had discovered "in its novelty new chords [*concenti*] and new emotions [*affetti*], and not unreasonable ones, though they move far, in some ways, from the old traditions of various excellent Musicians." To l'Ottuso's loose usage of the term *concento* Artusi opposed a rigorous definition: "Con-

62. *Dichiaratione*, p. 1; translated in Strunk, *Source Readings*, p. 46.

63. *Seconda parte dell'Artusi*, p. 10.

64. *L'Artusi*, fol. 33v.

*cento*, as it is defined by all wise men, is a mixture of low and high sounds combined in such a way that, when struck, it renders infinite sweetness to the ear. In which definition there are two things to ponder: first, that *concento* is composed of low and high sounds combined; and second, that these combined sounds produce a sweet effect.” Now Monteverdi’s use of consonances was like that of other composers—Artusi here quoted the opening of the madrigal “Era l’anima mia,” a “*concento* that has been used thousands of times by every composer who has ever composed”—and so could not be the source of his novelties. His dissonances were certainly not divided in any of the acceptable mathematical proportions; moreover, like all dissonances, “they have by nature no sweetness or softness; rather they cause an effect of unbearable harshness.” Since *concenti* were defined as sweet and dissonances were harsh, dissonances were not *concenti* at all. And since Monteverdi’s novel usage lay only in his dissonance treatment, he could not possibly have created the *novi concenti* l’Ottuso claimed for him. Moreover, since Monteverdi had created no new *concenti*, how could he hope to create new *affetti*?

To l’Ottuso’s just if imprecisely stated observation of new sounds in Monteverdi’s style Artusi responded with a sophistic barrage of semantic hairsplitting, which we might reduce to a self-serving and empty syllogism:

- All *concenti* are sweet-sounding.
- All Monteverdi’s novelties are harsh-sounding.
- ∴ Monteverdi has created no novel *concenti*.

Artusi sidestepped the simple truth of l’Ottuso’s remark by refusing to acknowledge his imprecise usage of the term *concento*. Just as adroitly he ignored the testimony of his ears. There *were*, after all, new sounds in Monteverdi’s madrigals—these are what had inspired Artusi’s criticism in the first place.<sup>65</sup> Artusi’s rejection of manifest sense experience reminds us of skeptics like the Aristotelian philosopher Cesare Cremonini, who refused to look through Galileo’s telescope, fully believing that what Galileo claimed to see there could not exist. And the sophistry of Artusi’s argument brings to mind some of Galileo’s later opponents, who countered his reasoning with syllogistic “demonstrations” of which the first premises were artificially structured to attain the desired result.<sup>66</sup>

Like Giason Denores, Artusi was firm in his belief that modern practice should answer to the precepts of theory.

If, with the observation of the precepts and good rules left by the Theorists and observed by all practitioners, we can reach our goal, then what point is there in going beyond these limits and searching for oddities? Do you not know that all

65. For Artusi’s discussion see the *Seconda parte dell’Artusi*, pp. 6–11.

66. For an example of Galileo’s ridiculing of this specious logic see Shea, *Galileo’s Intellectual Revolution*, pp. 115–16, 119.

the Sciences and Arts have been regulated by wise men, and that in each the first Elements, Rules and Precepts on which it is founded have been set down, so that, not deviating from principles and good rules, one man may be understood by another?<sup>67</sup>

And, though Artusi disingenuously claimed elsewhere that he respected a practicing artist without theoretical knowledge more than a theorist without practical knowledge,<sup>68</sup> his scorn for those rude musical *artefici* who knew little of theory was apparent:

There is no doubt that the discussion of difficult and very speculative things does not pertain to the practitioner; it is, rather, the office of the Theorist, since the simple practitioner cannot penetrate deep enough to understand such particulars. Thus it is that, their intellect not allowing them to reach this truth, the compositions of these practitioners show many impertinences and imperfections, which arouse nothing but infinite shame.<sup>69</sup>

In the face of this exaltation of rationalism and the intellect, Monteverdi advanced the claims of the passions of the soul. His Second Practice aimed, as we have said, “to make the words the mistress of the harmony and not the servant.” It did so to increase the affective power of the composition as a whole. For had not Plato affirmed, in discussing the three components of music, that the rhythm and harmony should follow the words and “the manner of the diction and the words follow and conform to the disposition of the soul”?<sup>70</sup> Monteverdi’s implicit view that the foremost goal of his music was to move the passions provided the rational basis for his Second Practice. It claimed for him the same freedom to break the rules for expressive ends that Guarini had demanded before him. And in so doing it asserted the flexible interaction of theory and practice rather than the rigid scholastic hegemony of one over the other.

On the importance of musical practice Giulio Cesare Monteverdi was especially emphatic in his gloss of his brother’s letter. He challenged Artusi to match Monteverdi’s works not with theoretical tracts but “with a comparable practical performance”:

Then let him allow the world to be the judge, and if he brings forward no deeds, but only words, deeds being what commend the master, my brother will again find himself meriting the praise, and not he. For as the sick man does not pronounce the physician intelligent from hearing him prate of Hippocrates and Galen, but does so when he recovers health by his wisdom, so the world does not pronounce the musician intelligent from hearing him ply his tongue in telling of the honored harmonic theorists. For it was not in this way that Timotheus incited Alexander to

67. *L’Artusi*, fol. 42v.

68. *Ibid.*, fols. 33–34.

69. *Ibid.*, fols. 20–21.

70. *Dichiaratione*, p. 1; see Strunk, *Source Readings*, pp. 46–47, quoted here. Giulio Cesare quotes Plato’s *Republic* 398d, 400d.

war, but by singing. To such a practical performance my brother invites his opponent.<sup>71</sup>

Even the terms *First Practice* and *Second Practice*, said Giulio Cesare, were devised by Monteverdi to suggest actual composition and not abstract theory.<sup>72</sup>

Monteverdi's distinction of two different practices itself betrayed a humanist view of historical and cultural change. Monteverdi did not wish to condemn the *Prima Pratica* but, in his brother's words, "honors, reveres, and commends" it. (Monteverdi's later exercises in the style, like the *Missa in illo tempore* of 1610, support this statement.) He recognized the First Practice as the excellent style of another generation and fought only those who, like Artusi, would establish its precepts as eternal truths. Against such a position, indeed, Giulio Cesare tellingly cited Zarlino himself, Artusi's mentor:

"It was never nor is it my intention to treat of the usage of practice according to the manner of the ancients, either Greeks or Latins, even if at times I touch upon it; my intention is solely to describe the method of those who have discovered our way of causing several parts to sound together with various modulations and various melodies, especially according to the way and manner observed by Messer Adriano [Willaert]." Thus the Reverend Zarlino concedes that the practice taught by him is not the one and only truth. For this reason my brother intends to make use of the principles taught by Plato and practiced by the divine Cipriano [de Rore] and by modern usage, principles different from those taught and established by the Reverend Zarlino and practiced by Messer Adriano.<sup>73</sup>

Undoubtedly Monteverdi would have been quick to admit, with Guarini, that the artworks "we esteem . . . as excellent . . . our descendants will perhaps regard as imperfect."<sup>74</sup>

Surprisingly, Artusi seemed ready to accede to Monteverdi's position of cultural evolution and diversity in the last document of the polemic, the *Discorso secondo musicale* of 1608—to accede, that is, insofar as it enabled him to cast doubt on the propriety of Giulio Cesare's citation of ancient authority. Plato, wrote Artusi, is irrelevant to the discussion because "he doesn't treat, never treated and, I believe,

71. *Dichiaratione*, p. 2; translated in Strunk, *Source Readings*, p. 48.

72. *Dichiaratione*, p. 2; see Strunk, *Source Readings*, p. 49.

73. *Dichiaratione*, pp. 2–3; translated in Strunk, *Source Readings*, p. 49.

74. Already in 1592 the literary theorist Agostino Michele had seized on historical changes in musical style to evidence the ubiquity of such changes in all the arts: "There is nothing under the sun that remains stable and firm, and it is instability that establishes laws for everything ter-

restrial and mortal. . . . Take music, in which many years ago Giusquino [des Prez] and Adriano [Willaert] flourished; in the past age Cyprian [de Rore] and Orlando [di Lasso] were famous; and in these days Marenzio and [Orazio] Vecchi become singular and illustrious; and nevertheless their manners of composing are so different that it seems they are not practitioners of the same art" (from Michele's *Discorso* in defense of prose comedy and tragedy; quoted from Hathaway, *The Age of Criticism*, p. 106).

never thought of treating modern music; rather, I am convinced that he spoke [only] of that music which flourished in his own time." Artusi admitted that the words were of first importance in the music of Plato's era; this was true because they were "recited to the sound of a single instrument." But Monteverdi's polyphonic music was different. Here the words were not intelligible, and it was the sounds (*l'armonia*) alone, if anything, that moved the listener. So the words must serve the sounds, not vice versa—as in Monteverdi's First Practice, for Artusi still the only legitimate modern practice. And this practice, Artusi concluded, "was determined, ordered, and regulated by the most wise Zarlino, and is the same practice [Marc'Antonio] Ingegneri taught to Monteverdi . . . , though he pays it little heed." Now, suddenly, Artusi became the spokesman for cultural and artistic diversity. After basing many of his own arguments in his earlier writings on the precepts of ancient authorities, he denied Monteverdi the same privilege. The Bolognese theorist managed, though not without self-contradiction, to have it both ways.<sup>75</sup>

In doing so, however, he embroiled himself in further contradictions. His argument against Monteverdi's use of Plato—that Plato spoke only of the music of his own time—was precisely Monteverdi's argument against the extension of the precepts of the First Practice to the music of the Second. And Giulio Cesare had quoted Zarlino's own admission of the limited scope of his theoretical system. Artusi ended his *Discorso* with a testy rejoinder to this citation:

In the middle of his clarification of the letter, to prove that there is another practice, different from that described by Zarlino, he cites Zarlino's words from the first Chapter of the *Sopplimenti [musicali]*. . . . Therefore there is another practice, which we shall call the second. But if we decide to call the practice of the Greeks and Romans another practice (and there is no doubt that our practice is different from theirs . . . ), we can then say that theirs was the first practice, and that the modern one followed by Cipriano and by M. Adriano, first described by Zarlino, is the second, and that Monteverdi's method of composition is the third. Or even the fourth, if we want to distinguish Greek from Roman practice. So that I may conclude that all these things are chimeras, said by Monteverdi, as he admits, only to defend himself from his opponent and because he cannot discover demonstrations to prove the things he has done good and true.<sup>76</sup>

But Artusi's argument, of course, allowed him to draw no such conclusion. His renaming of Monteverdi's practices had no bearing on their essence; it was nominalism of the most hollow sort. Indeed eight pages earlier Artusi had ridiculed just such a thought process concerning a terminological quibble in Giulio Cesare's *Dichiaratione*. We may quote him now against himself: "If . . . he had studied Logic,

75. For this discussion see the *Discorso secondo musicale*, p. 9.

76. *Ibid.*, p. 15.

he would have understood that *nomina sunt ad placitum*, and therefore he would have quieted down. But let us leave these bagatelles, which matter little.”<sup>77</sup>

The conflict of humanist and scholastic tendencies in Italian culture of the late Renaissance centered ultimately on the extent of man’s ability to conceptualize reality. There was no doubt, on either side, of the pressing need for such conceptualization. For Artusi, only reason and hallowed authority could legitimize action, while Monteverdi, countering Artusi’s charges of irrationality, asserted in his preface to Book V that he did not compose by chance, that he built on “foundations of truth.” But Artusi and Monteverdi, and late-*cinquecento* humanists and scholastics in general, differed in the lengths to which they would go to preserve the rationalized world order handed down to them by earlier generations. Galileo, Guarini, and Monteverdi were each able to relinquish this order, at least in part, in the pursuit of more accessible and rewarding goals. They accepted the burdens of freedom. This allowed both Guarini and Monteverdi to seek novel expressive techniques; it also earned them the enmity of theorists and involved them in difficult processes of stylistic experimentation, redefinition, and defense. And Galileo, in order to accommodate new evidence from observation or reasoned “thought experiments,” often forced himself to sacrifice his urgent Platonic desire to recreate reality as mathematical Idea. He taught the important lesson that knowledge could advance even while taking small steps backward through the admission of seeming paradox and apparently inexplicable phenomena. The actions of Galileo, Guarini, and Monteverdi—and those of many other imaginative personalities of their time, from the historian Paolo Sarpi to the poet Ottavio Rinuccini<sup>78</sup>—were courageous as well as creative acts in an era of growing intellectual authoritarianism.

For writers like Grassi, Denores, and Artusi, on the other hand, the need for rational control was too pressing to allow them this intellectual and creative curiosity. Artusi revealed this need most explicitly in the paeon to order that opens his *Considerationi musicali*: “Everyone tries to be orderly, in himself and in the things relating to his science or art; because where there is no order, there is confusion, and where there is confusion, there cannot be anything useful or honorable to man.”<sup>79</sup> Fear of the uncontrollable confusion and irrationality around them extinguished the last spark of creative intellect in these writers. It led them to blind dogma and the exaltation of earlier authorities and caused them to sacrifice precisely that dignity of human intellect that they meant to uphold. Returning to the opening of Artusi’s *Considerationi*, we read that “the Ancient Philosophers, most acute and subtle observers and reporters of things,” studied the rational order of natural events.

77. Ibid., p. 7.

78. On Sarpi see Bouwsma, *Venice and Republican Liberty*, chap. 8 and passim; on Rinuccini, Gary Tomlinson, “Rinuccini, Peri, Monteverdi,

and the Humanist Heritage of Opera,” esp. chap. 6, and chaps. 5 and 10 below.

79. *Considerationi musicali*, p. 2.

Thus "they knew that the motion of one heaven was neither slowed nor impeded by that of another, but proceeded inviolably; and that the sun ran its course consistently, never stopping."<sup>80</sup> Artusi grounded his optimistic view of the capabilities of human intellect in the comprehension of such unswerving natural order. He, and others like him, could not admit a universe so topsy-turvy that the sun itself had stopped moving and the earth taken its place.

The importance of the polemic with Artusi lies in the insights it offers into Monteverdi's humanist inclinations. It revealed his awareness of historical change and his understanding that artistic authorities of the past were conditioned by their own cultures to express themselves in ways not necessarily relevant to Italian culture of his own age. In the process it loosened the grip of these authorities on him and, in his view, on his colleagues. The polemic manifested as well Monteverdi's rejection of the scholastic placing of theory over practice. He sensed, as Guarini had, that the two needed to develop together in a continuous process of reciprocal influence and cross-fertilization.

Last and most important, the controversy disclosed Monteverdi's abiding concern to join music to poetry in a single moving and persuasive language. It is this concern that most clearly marks Monteverdi as an heir to humanist ideals. It links him to the humanists' high estimation of man's will and their urge to sway man's passions. It associates his work with their pursuit of rhetorical eloquence, the key to those passions. To be sure, Monteverdi was not the first musician to hold such views. He himself knew that they were shared by the earlier representatives of his Second Practice, and today we know that they extend back at least to the *strambottisti* of the late fifteenth century. But he moved far beyond earlier composers in constructing musical styles of powerful eloquence. His achievement signals the climax of Renaissance humanism in music.

For a musician of humanist leanings like Monteverdi, the expressive power of music was a function of its relation to its text. (And it is a serious if common error to underestimate the complexity and diversity of text-music conjunctions that a late-sixteenth-century composer could command.) The highest goal that music could seek, a goal often attained by Monteverdi, especially in works from the years around 1600, was to form a syntactic and semantic union with its text so perfect that the distinction of musical and nonmusical elements seemed to fade before the heightened oratorical power of a single musical speech. To composers like Monteverdi, musical expression without text must have seemed a contradiction in terms, if indeed they ever conceived of the subject in such terms at all. Instrumental music could astonish, like vocal music, in its virtuosity or fulfill its more usual function as courtly *Gebrauchsmusik*. But the formation of a meaningful, connotative syntax that could appeal to a variety of human passions—the goal of Cicero-

80. Ibid., p. 1.

nian oratory that Monteverdi achieved time and again in his vocal music—was implicitly beyond its means. Monteverdi's own instrumental music, the many ballets, *sinfonie*, and ritornelli in his operas and late madrigal books, was always meant to derive its expressive dimension either from the mimetic gesture it accompanied (in the case of dance music) or from its structural resonance in the texted passages around it.

All this casts the humanist composer in the role of poetic exegete. The wonder of Monteverdi's achievement, simply put, is the unceasing imagination he brought to the fundamental act of the musical transfiguration of poetry. The exegete, however, also learns from his text. The extraordinary variety of responses to poetry in Monteverdi's music was induced, more directly than by any other factor, by the wide stylistic diversity of the poems themselves. In the following chapters we will discuss these changing poetic styles and Monteverdi's responses to them, and finally attempt to place both in the volatile dialectic of humanist and scholastic values in Italian culture around 1600.