cardinal priest of the title of St. Cecilia, legate of the apostolic see, made after separate deliberation of the nations, and who adhere expressly and entirely to the opinion of the seven judges appointed by the same legate in the same statute, greeting in the Saviour of all. All should know that we masters, each and all, from the preceding abundant and considered advice and deliberation of good men concerning this, wishing with all our power to avoid present and future dangers which by occasion of this sort might in the future befall our faculty, by common consent, no one of us contradicting, on the Friday preceding the Sunday on which is sung Rejoice Jerusalem, the masters one and all being convoked for this purpose in the church of St. Geneviève at Paris, decree and ordain that no master or bachelor of our faculty should presume to determine or even to dispute any purely theological question, as concerning the Trinity and incarnation and similar matters, since this would be transgressing the limits assigned him, for the Philosopher says that it is utterly improper for a non-geometer to dispute with a geometer. 3

But if anyone shall have so presumed, unless within three days after he has been warned or required by us he shall have been willing to revoke publicly his presumption in the classes or public disputation where he first disputed the said question, henceforth he shall be forever deprived of our society. We decree further and ordain that, if anyone shall have disputed at Paris any question which seems to touch both faith and philosophy, if he shall have determined it contrary to the faith, henceforth he shall forever be deprived of our society as a heretic, unless he shall have been at pains humbly and devoutly to revoke his error and his heresy, within three days after our warning, in full congregation or elsewhere where it shall seem to us expedient. Adding further that, if any master or bachelor of our faculty reads or disputes any difficult passages or any questions which seem to undermine the faith, he shall refute the arguments or text as far as they are against the faith or concede that they are absolutely false and entirely erroneous, and he shall not presume to dispute or lecture further upon this sort of difficulties, either in the text or in authorities, but shall pass over them entirely as erroneous. But if anyone shall be rebellious in this, he shall be punished by a penalty which in the judgment of our faculty suits his fault and is due. Moreover, in order that all these may be inviolably observed, we masters, one and all, have sworn on our personal security in the hand of the rector of our faculty and we all have spontaneously agreed to be so bound. In memory of which we have caused this same statute to be inscribed and so ordered in the register of our faculty in the same words. Moreover, every rector henceforth to be created in the faculty shall swear that he will cause all the bachelors about to incept in our faculty to bind themselves to this same thing, swearing on their personal security in his hand. Given at Paris the year of the Lord 1271, the first day of April. 3

13 THE CONDEMNATION OF 1277:
A SELECTION OF ARTICLES RELEVANT TO THE HISTORY OF MEDIEVAL SCIENCE

Translation, introduction, and annotation by Edward Grant

Ever since the introduction of Aristotle’s natural philosophy into the Latin West in the twelfth century, ecclesiastical authorities had feared its impact on theological studies and Christian belief. The Parisian prohibition of Aristotle’s natural books in 1210 and the demand for their expurgation in 1231 (see Selections 9 and 10) reflect the apprehension of some Church authorities. But the scientific and philosophic riches in the natural books of Aristotle made inevitable their inclusion into the medieval university curriculum, and by 1255 Aristotle’s works formed the core of medieval university education (see Selection 11) which was so heavily oriented toward logic and natural philosophy.

Aristotelian natural philosophy and metaphysics provided students and teachers of the thirteenth century with philosophical tools of analysis that were applied with great fervor to all areas of human

2. [Perhaps a reference to Aristotle’s remark in Physics 1.2.185a.1–3: “For just as the geometer has nothing more to say to one who refuses the principles of his science—this being a question for a different science or for one common to all—so a man investigating principles cannot argue with one who denies their existence.”—Ed.]

3. As Easter fell at that time after the first of April, the year is 1272 according to our reckoning.

1. This translation has been made from the Chartularium Universitatis Parisiensis, ed. H. Denifle and E.
thought. Aristotle and his Arabian commentators, especially Averroes, who was himself known as "the Commentator," reigned supreme during the middle decades of the thirteenth century and were zealously studied at the University of Paris and elsewhere. It was not long before the views held by some masters of arts on a number of controversial issues became obnoxious to the theologians at Paris. Being thoroughly aroused, they persuaded the bishop of Paris, Étienne Tempier, to condemn in 1270 thirteen articles or propositions, among which were the doctrines of the eternity of the world and the unicity of the intellect (which ascribed to all men a single common intelligence). In 1272 they compelled the masters of arts to swear an oath that they would not treat theological questions (see the preceding selection). The controversy forms the central theme of the treatise of Giles of Rome (Aegidius Romanus), who sometime between 1270 and 1274 published, in defense of his faith, a treatise called *Errors of the Philosophers* (*Errores philosophorum*), in which the so-called errors of Aristotle, Averroes, Avicenna, Algazali, Alkindi, and Moses Maimonides were listed. Finally, in 1277, Pope John XXI (formerly Peter of Spain, author of the *Summulae logicales*), concerned over the uproar, instructed the bishop of Paris to investigate the controversies besetting the University of Paris. Not only did Tempier investigate but in only three weeks, on his own authority, he issued a condemnation of 219 propositions drawn from many sources, including, apparently, the works of Thomas Aquinas, some of whose ideas found their way onto the list. The Pope appears to have acquiesced in the actions of the bishop of Paris, and he accepted the penalty of excommunication for all who upheld even a single proposition.

There is little doubt that the condemnation influenced the course of philosophy, for under penalty of excommunication, many deterministic arguments drawn from, or based on, Aristotle's philosophy had of necessity to be modified and qualified. Alternatives, previously thought to be silly or absurd, had now to be entertained as at least possible—even if only by virtue of God's infinite and absolute power. Because of the condemnation, it became a characteristic feature of fourteenth-century scholastic discussion for authors to declare that although something was naturally impossible, it was supernaturally possible. Thus while it was naturally impossible for more than one world to exist, or for a vacuum to exist, God could achieve both of these effects if He so desired. Theologians expanded the domain where God's absolute and unpredictable power was operative and severely reduced the domain of certain and demonstrated knowledge. The God who lived in obedience to His own laws in the Thomistic interpretation was little in evidence in the fourteenth century.

It was because the condemnation was, in effect, a frontal assault on Aristotelian metaphysics and philosophy that it seemed important and significant to Pierre Duhem, the eminent historian of medieval science, who saw it as an instrument liberating medieval science from bondage to Aristotelian cosmological and metaphysical assumptions and conclusions. It was fortunate, according to Duhem, that propositions denying God's power to move the universe with a rectilinear motion (see Proposition 49) or to create more than one world (see Proposition 34) were condemned, because it was a happy consequence that thereafter discussions on the possibility of a void and the existence of other worlds were forthcoming and served to stimulate scientific imagination and investigation. Indeed, Duhem was moved to declare that "if we must assign a date for the birth of modern science, we would, without doubt, choose the year 1277 when the bishop of Paris solemnly proclaimed that several worlds could exist, and that the whole of the heavens could, without contradiction, be moved with a rectilinear motion." Although this claim is extreme and it is also doubtful whether the new intellectual vistas opened up by the condemnation were helpful to medieval science (Alexandre Koyré, for example, denied it completely), it is a fact that the questions which Duhem thought so monumental were indeed wide-open.

Chatelain (Paris, 1889–1897), I, 543–555. The original order of the propositions as printed in the *Chartularium* has been retained. A complete translation of all 219 condemned propositions following the regrouping and renumbering of P. Mandonnet, *Siger de Brabant et l'averroïsme latin au xiiième siècle*, 2d ed. (Louvain: Institut supérieur de philosophie de l'Université, 1908), Part II, has been made by Ernest L. Fortin and Peter D. O'Neill in *Medieval Political Philosophy: A Sourcebook*, ed. Ralph Lerner and Munshin Mahli (New York: The Free Press of Glencoe, 1963), pp. 337–354. 2. This treatise has been edited and translated by Jose Koch and John O. Reidl (Milwaukee, Wis.: Marquette University Press, 1944).

ly discussed in the fourteenth century. It is also true to assert that fourteenth-century physicists and natural philosophers departed on many specific points from Aristotelian solutions and mechanisms of explanation.

On February 14, 1325, the condemnation was annullled because of a great sentiment in favor of the teachings of Thomas Aquinas, a number of whose ideas and positions had been included in the condemnation. In the document of nullification (printed in Chartularium, II, 280–281), the bishop of Paris declares that “on the basis of certain knowledge held at present, we wholly annul the aforementioned condemnation of articles and judgments of excommunication as they touch, or are said to touch, the teaching of blessed Thomas, mentioned above; and because of this we neither approve nor disapprove of these articles, but leave them for free scholastic discussion.” From this it would appear that the articles condemned in 1277 no longer carried the penalty of excommunication.

It is of interest, however, that, in annulling the condemnation of 1277, the bishop of Paris adopted a position of neutrality toward the articles themselves, which perhaps explains why they continued to be cited in the latter part of the fourteenth century by men of the stature of Jean Buridan, Nicole Oresme, Albert of Saxony, and others.

To all who shall examine these words, Stephen, by divine permission unworthy minister of the Church of Paris, sends greetings in the [name of the] Son of the glorious Virgin. Frequent reports from great and important people aflame with the zeal of faith have made known that some who study at Paris in the arts exceed the proper bounds of the faculty and in the schools presume to write about, and dispute, certain obvious and abominable errors—indeed, rather, “vanities and lying follies”(4) (these are listed on the roll following this letter)—as if they were [merely] doubtful.4 They seem not to understand what Gregory said, namely that one who endeavors to speak wisely should be very apprehensive lest the unity of his audience be confounded by his discourse, especially since they support the aforesaid errors by the writings of the geniuses, which—oh! for shame—they declare in their ignorance, that these have such force that they do not know how to answer them. However, that they should not seem to assert what they hint at, they declare such feeble responses that while they are eager to avoid Scylla, they fall into Charybdis. For, indeed, they say that things are true according to philosophy but not according to the Catholic faith; as if there could be two contrary truths, and as if contrary to the truth of Sacred Scripture there could be truth in the statements of the damned geniuses of whom it was written: “I will destroy the wisdom of the wise”7 because true wisdom destroys false wisdom. Oh that such people might understand the advice of the wise man who says: “If thou have understanding, answer thy neighbour: but if not, let thy hand be upon thy mouth, lest thou be surprised in an unskilful word, and be confounded.”8 Therefore, lest dangerous discourse should draw the innocent into error, we strictly forbid, on the advice communicated to us by doctors of sacred theology and other prudent men, that such things and similar things be done, and wholly condemn these things, excommunicating all those who shall have taught some or all of the said errors, or shall have presumed to defend or support them in any way whatever, and also those who listen to these things, unless it be disclosed that within seven days they have come forward to us or to the Chancellor of Paris, notwithstanding other punishments that might be inflicted upon them for the extent of their guilt, as the law shall dictate. By our same judgment, we also condemn the book De amore, or De Deo amoris, which begins as follows: Cogit me multum, etc., and ends with these words: Cave igitur, Gallere, amoris exercere mandata, etc.; likewise the book of Geomancy, which begins this way: Estimavero Indi, etc., and ends this way: Ratiocinare ergo super

5. Errors that should have been identified unequivocally were instead treated as if they were only doubtful.
6. This is the doctrine of the double truth attributed to the Latin Averroists in the thirteenth century. Not only is it doubtful that Averroes himself ever held the view described here but no blatant adherents of the doctrine can be identified in the Latin West—not even Siger of Brabant, so often alleged to have been its most famous proponent. As presented here, the doctrine implies that two contrary statements could be maintained if it were merely argued that one was true by virtue of natural reason (and could, therefore, be false supernaturally) and the other by virtue of faith and dogma (and perhaps false by natural reason; see Proposition 90). When faced with such contrary statements, an adherent of this doctrine would have argued, presumably, that he accepted the truth of faith as a higher truth, but that this did not conflict with his acceptance of the truth of the contrary statement arrived at through natural reason from the premises of physics and metaphysics.
7. 1 Corinthians 1:19.
10. On the God of Love.
eum, et invenies, etc.; likewise [we condemn] books, rolls, or pamphlets (quaternos) on magic containing experiences of prophesying, invocations of demons, or conjurations on the peril of souls, or [writings] in which such things and similar things are evidently treated in ways that are adverse to the good customs of the orthodox faith. On all those who shall have taught or heard the said rolls, books, or pamphlets, we set forth the judgment of excommunication, unless, as expressed above, within seven days they shall have revealed themselves to us or the aforementioned Chancellor of Paris, notwithstanding other punishments that might be exacted according to the seriousness of the crime. Given at the curia of Paris, in the year of the Lord, 1276, on the Sunday in which Rejoice Jerusalem is sung.

The letter ends. The errors listed on the roll follow:

6. That when all celestial bodies have returned to the same point—which will happen in 36,000 years—the same effects now in operation will be repeated.12

9. That there was no first man, nor will there be a last; on the contrary, there always was and always will be generation of man from man.

21. That nothing happens by chance, but all things occur from necessity and that all future things that will be will be of necessity, and those that will not be it is impossible for them to be; and that upon considering all causes, [it will be seen that] nothing happens contingently. [This is an] error because by definition a concourse of causes occurs by chance, as Boethius says in his book On Consolation [of Philosophy].

34. That the first cause could not make several worlds.

35. That without a proper agent, as a father and a man, a man could not be made by God [alone].

37. That nothing should be believed unless it is self-evident or could be asserted from things that are self-evident.

38. That God could not have made prime matter without the mediation of a celestial body.

48. That God cannot be the cause of a new act [or thing], nor can he produce something anew.

49. That God could not move the heavens [that is, the world] with rectilinear motion; and the reason is that a vacuum would remain.

52. That that which is self-determined, as God, either always acts or never acts; and that many things are eternal.

66. That there are several first movers.

74. That a motive intelligence of the heavens influences the rational soul just as a celestial body influences the human body.

87. That the world is eternal as to all the species contained in it; and that time is eternal, as are motion, matter, agent, and recipient; and because the world is derived from the infinite power of God, it is impossible that there be novelty in an effect without novelty in the cause.

88. That nothing could be new unless the sky were varied with respect to the matter of generable things.

90. That a natural philosopher ought to deny absolutely the newness [that is, the creation] of the world because he depends on natural causes and natural reasons. The faithful, however, can deny the eternity of the world because they depend upon supernatural causes.17

91. That the argument of the Philosopher18 dem-

11. Although the year 1276 is recorded here, the date March 7, 1277, precedes the document published in the Chartularium. During this period in France, the new year began at Easter.

12. See Selection 51.2, last paragraph, and note 86, where Nicole Oresme is probably alluding to this very proposition.


14. This is Aristotle’s position in On the Heavens (De caelo), Book I, chapter 9. A detailed discussion of this widely considered question is given below, in Selection 71, by Nicole Oresme (see also next note). Here we have one of a number of propositions which limited God’s power and aroused the ire of the theologians (for similar restrictions on God’s power, see propositions 35, 38, 48, 49, and 141).

15. On the basis of this condemned proposition, it was henceforth respectable to argue that a vacuum was possible by divine action, and scholastics would concede this routinely. But it did not produce any proponents of an actually existent void space within the confines of the universe (concerning the existence of void beyond the world, see the dialogue between Hermas Trismegistus and Asclepius, Selection 72. Indeed, acceptance of motion in a hypothetical void antedates the Condemnation, for we find Aquinas asserting it in his Commentary on the Physics, quoted in Selection 55.1. Condemnation of this proposition could hardly have had the consequences ascribed to it by Duhem (see the introduction to this selection). However, at least five scholastics (Richard of Middleton, Thomas Bradwardine, Jean Buridan, Nicole Oresme, and Jean Hennon) found occasion to mention it.

16. Cited by Thomas Bradwardine in De causa Dei contra Pelagium (ed. Henry Savile [London, 1618], p. 177) and included in Selection 73.1.

17. Here is an illustration of the doctrine of the double truth.

18. That is, Aristotle.
onstrating that the motion of the sky is eternal is not sophistical; and it is amazing that profound men do not see this.

92. That celestial bodies are moved by an internal principle, which is soul; and that they are moved by a soul and by an appetitive power (per virtutem appetitivam) [that is, by force of desire] just as an animal; for just as an animal is moved by desire, so also is the sky.

93. That celestial bodies have eternity of substance but not eternity of motion.

94. That there are two eternal principles, namely the body of the sky and its soul.

95. That there are three principles in celestial bodies: (1) a subject of eternal motion, (2) a soul of a celestial body, and (3) the prime mover as that which is desired.—The error concerns only the first two.

98. That the world is eternal because that which has a nature by [means of] which it could exist through the whole future [surely] has a nature by [means of] which it could have existed through the whole past.

99. That the world, though it was made from nothing, was not, however, made anew; and although it came into being from nonbeing, nevertheless nonbeing did not precede being in duration, but only in nature.

100. That theologians who say that the sky [or heavens] sometimes rests argue from a false assumption; and that to say that the sky exists and is not moved is to utter contradictions.¹⁹

101. That an infinite [number] of celestial revolutions have preceded which it was not impossible for the first cause [that is, God] to comprehend, but [which are impossible of comprehension] by a created intellect.

102. That the soul of the sky is an intelligence and the celestial orbs are not instruments of the intelligences, but organs, just as the ear and the eye are organs of the sensitive power.

106. That the immediate effective cause of all forms is an orb.

107. That the elements are eternal. However, they have been made [or created] anew in the relationship which they now have.

110. That the celestial motions occur because of an intellectional soul; but an intellectional soul or intellect cannot be produced except by means of a body.

111. That no form coming from outside can become one with matter. For what is separable does not make [or become] one with what is corruptible.

137. That although the generation of men might become deficient, it does not because of the power of the first orb, which not only moves to generate the elements but also to generate men.

140. That to make an accident exist without a subject is an impossible argument implying a contradiction.

141. That God cannot make an accident without a subject nor make more [than three] dimensions exist simultaneously.

143. That from the different [zodiacal] signs of the sky diverse conditions are assigned in men, both with respect to spiritual gifts and temporal things.

145. That no question is disputable by reason which a philosopher ought not to dispute and determine, since arguments (rationes) are taken from [or based on] things. Moreover, philosophy has to consider all things according to its diverse parts.²⁰

147. That the absolutely impossible cannot be done by God or another agent.—An error, if impossible is understood according to nature.

148. That by nutrition a man can become another numerically and individually.²¹

150. That on any question, a man ought not to be satisfied with certitude based upon authority.²²

151. That for a man to have certitude of any conclusion, it is necessary that he found it on self-
evident principles.—An error, because it speaks in a
general way about both certitude of understanding
and [certitude of] adhesion (adhensionis).

152. That theological discussions are based on
fables.

153. That nothing is known better because of
knowing theology.

154. That the only wise men of the world are
philosophers.

161. That the effects of the stars on free will are
hidden.

162. That our will is subject to the power of the
celestial bodies.

183. That it is not true that something could be
made from nothing, and also not true that it was
made in the first creation.

186. That the sky never rests because the genera-
tion of the lower things, which is the end purpose
of celestial motion, ought not to cease; another
reason is because the heavens have its being and
power from its mover which things are preserved
by its motion. Whence if its motion should cease,
its existence would cease.

199. That in efficient causes when the first cause
[God (?)] ceases to act the second [or secondary]
cause does not cease its operation since it could
operate in accordance with nature.

201. That He who generates the whole world
assumes a vacuum because place necessarily pre-
cedes what is generated in that place; therefore,
before the generation of the world there was a
located place which is a vacuum.

202. That the elements have been made in a
previous generation from chaos; but they are
eternal.

Here ends the roll of errors containing
two hundred and nineteen articles condemned at
Paris by Stephen, faithworthy minister and bishop
of the same place; [issued] in the curia of Paris in
the year of the Lord 1276, on the Sunday in which
Rejoice Jerusalem is sung.

14 AN OBJECTION TO THEOLOGICAL RESTRICTIONS IN THE DISCUSSION OF
A SCIENTIFIC QUESTION

John Buridan (ca. 1300—ca. 1358)

Translated and annotated by Edward Grant

In the eighth [question] we inquire whether it is
possible that a vacuum exist by means of any power.

It is argued that this cannot be . . . . [After
citing a few arguments of others in behalf of this
position, Buridan presents his own views.—Ed.]

The opposite [position] is argued because God
could annihilate everything under the lunar orb
with the magnitude and figure of the lunar orb
preserved. Then the concave orb of the moon,
which is now a plenum in the lower world, would be
a vacuum, just as a pitcher would be a vacuum if
God annihilated the wine in it while preserving the
pitcher and where no other body enters or is made
in the pitcher. And thus some of my lords and
masters in theology have reproached me on this,
saying] that sometimes in my physical questions

23. How adhesio should be translated in this context is
unclear. But the term seems to be used here by way of
contrast with understanding on the basis of self-evident
principles, suggesting a reference to articles of faith.

24. The hostility and tension that had developed be-
tween theologians and philosophers is well illustrated by
propositions 152–154.

25. Who the proponents of this decidedly un-Aristo-
telian proposition were is a puzzle. In the fourteenth
century, however, Thomas Bradwardine himself utilized
substantially the same position in his De causa Dei
contra Pelagium (Savile edition, p. 178) in seeking to show
that an imaginary infinite void space exists outside the
cosmos. Curiously, in the very section where this con-
demned proposition is accepted and utilized by Brad-
wardine, he cites propositions 49 and 52 from the Con-
demnation of 1277, which he identifies as having been
issued by the bishop of Paris. It should be noted, how-
ever, that in Bradwardine’s version of condemned Prop-
osition 201, God himself, who is ubiquitous, occupies
the place in which eventually He created the world.
Hence, the place which the world was to occupy was void
of matter prior to the creation, but not void of God. In
Proposition 201 the impression is given that the pre-
existent vacuum was not created by God, but was coex-
sistent and coeternal with Him.

1. This selection constitutes a part of Book IV, Quest-
ion 8, of John Buridan’s Questions on the Eight Books of
the Physics of Aristotle and has been translated from
Acutissimi philosophi reverendi Magistri Johannes Bur-
danii subtilissimae questiones super octo phisicorum libros
Aristotelis diligenter recognitae et revisa Magistro Joho-
nee Dulaert de Gandavo anteas usque impressae (Paris,
1509; Frankfurt: Minerva, 1964), fols. 73 verso, col. 2 to
74 recto, col. 1.

2. From Buridan’s time and thereafter this particular
illustration became almost commonplace. For Albert of
Saxony’s use of it, see Selection 53.1.