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Four Condemnations

Philosophy and Religion in Conflict

Lecture Notes

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Contents

1. Introduction

1

In this course I plan to take a careful look at four famous condemnations: At issue is the genesis of our modern world, more especially the role that both science and religion play in that genesis. Each condemnation brings a different aspect of that genesis into focus. The four condemnations are

1) the Condemnation of 1277,
2) the condemnation of Meister Eckhart in 1328,
3) the condemnation and execution of Giordano Bruno in 1600,
4) the condemnation of Galileo Galilei in 1633.

1. The significance of the first is suggested by the great historian of science Pierre Duhem, who called the Condemnation of 1277 "the birth certificate of modern physics."[1] The fact that it was conservative theologians, made uneasy by the enthusiastic reception of the philosophy of Aristotle and his Arab interpreter Averroes, which they found incompatible with Christian doctrine, who are said to have issued that "birth certificate" invites reflection. Theology here asserted its priority over secular pagan philosophy. But what does modern physics have to do with theology? Key here is the incompatibility of Aristotle's philosophy of nature and modern science. The authority of Aristotle had to be called into question for science, as we have come to know it, to evolve. And as we shall see, questioning the authority of Aristotle involved crucially appeals to divine and human freedom.

One theme of this course is the relationship of truth and freedom. Is there a sense in which religion, or more especially theology, can be considered the privileged custodian

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[1] Pierre Duhem, *Medieval Cosmology*, ed. and trans. Roger Ariew (Chicago and London: Chicago University Press, 1985), p. 4. For the text of the Condemnation see P. Mandonnet, *Siger de Brabant et l'averroisme latin aux XIIIme siècle, 2me partie, textes inédites*, Louvain, 1908, pp. 175 - 191 and R. Hisette, *Enquète sur les 219 articles condamnés à Paris le 7 mars 1277*, *Philosophes médiévaux* (Louvain: Publications Universitaires, 1977), vol 22. Trans. "The Condemnation of 1277," *Philosophy in the Middle Ages*: *The Christian, Islamic, and Jewish Traditions,* ed. Arthur Hyman & James J, Walsh, 2nd. ed. (Indianapolis: Hackett, 1973), pp. 582-591. The numbering of the propositions in this translation follows the Mandonnet edition.

of both? Or is perhaps the very opposite the case, as so many modern philosophers have insisted.

2. The significance of the second condemnation becomes apparent when we consider Meister Eckhart's teachings in their historical context: especially in his sermons a radical freedom found voice that threatened to undermine an already shaken establishment, threatened also to lead to what Kierkegaard came to call a teleological suspension of the ethical. At issue here, too, is once again the problem of freedom and the question: what should bind freedom? But now that problem appears with a more moral and political, rather than a cognitive cast.

3. The third condemnation, of Giordano Bruno, attempted to defend key dogmas of the Church against Bruno's vision of an infinite cosmos, judged incompatible with these. Once again we will see how centrally the new cosmology is linked to an insistence on the freedom of thought. What mattered to the Church, however, was, as we shall see, not so much Bruno's in many ways already modern understanding of the cosmos, which went far beyond what his hero Copernicus had taught, as his refusal to accept central Christian dogmas, especially the dogma of the incarnation. I hope to show that what is at stake is once again the problem of what should bind freedom. A freedom that is not bound at all threatens to degenerate into license.

4. The fourth condemnation, finally, the condemnation of Galileo, sought to reassert the authority of the Church as the custodian of truth against the claim that the truth is open in principle to any unprejudiced observer and thinker. Here, too, what is at issue is the relationship of truth to freedom, and the meaning of both. The continued timeliness of the Galileo affair is suggested by a remark made by Richard Rorty. In *The Mirror of Nature* Rorty asks whether today we can "find a way of saying that the considerations advanced against the Copernican theory by Cardinal Bellarmine — the scriptural descriptions of the fabric of the heavens — were 'illogical' or 'unscientific'?" Rorty argues that today we have to answer this question with a "no."[2]

> The argument … centers around the claim that the lines between disciplines, subject matters, parts of culture, are themselves endangered by

[2] Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979), pp. 328-333.

> novel substantive suggestions. … Bellarmine thought the scope of Copernicus's theory was smaller than might be thought. When he suggested that perhaps Copernican theory was just an ingenious heuristic device for, say, navigational purposes and other sorts of practically oriented celestial reckoning, he was admitting that the theory was, within its proper limits, accurate, consistent, simple, and perhaps even fruitful. When he said that it should not be thought of as having wider scope than this he defended his view by saying that we have excellent independent (scriptural) evidence for believing that the heavens were roughly Ptolemaic.

Rorty goes on to ask: "What determines that Scripture is not an excellent source of evidence for the way the heavens are set up?" He thus invites us to think Cardinal Bellarmine's attempt to limit the scope of Copernicus' astronomical claims as fundamentally no different from Galileo's attempt to limit the scope of Scripture. Both Galileo and the Bible claim to describe "the way the heavens are set up." As it turned out, the future made Galileo the victor. The establishment of science, as we tend to take it for granted, is part of that victory. But this, according to Rorty, does not justify the claim that Galileo had reason on his side. According to this post-Copernican, post-modern philosopher, we simply do not know how to draw a clear line between theological and scientific discourse.

I want to make here the opposite claim. Philosophy today, if it is to be more than an aesthetic play, must be able to explain why we must reject Cardinal Bellarmine's reflections, not as illogical, but as unscientific. What forces us to side with Galileo against Bellarmine is the commitment to objectivity that is a presupposition of being scientific. And this commitment is not only a presupposition of science, but also a presupposition of the world we live in, of our understanding of reality. As we shall see, the privilege that modernity has accorded to objectivity was won in a pattern of thought we can call Copernican reflection. But, as Nietzsche knew, the commitment to objectivity carries with it also the threat of nihilism or a loss of value. And again the problem arises: what then will bind freedom so that it does not degenerate into license.

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At issue in this course is thus the often uneasy relationship between religion and science, or more generally, between religion and freedom of inquiry. It is still an issue today. Think of the creationism debate. Does it make sense to claim with the philosopher Alvin Plantinga that what we need today is a Christian science?[3] Science and religion have both claimed to be the privileged custodians of truth. Concerned as it is with the uneasy relationship between religion and science, this course is also concerned with the issue of truth. How is the conflict between religion and science to be settled? Just what is at stake? Behind that conflict lies the problem of freedom. The question of truth, as should become clear, is bound up with the issue of freedom. The pursuit of truth demands freedom of thought. But is the very word religion not tried to binding? Although the etymology that ties the word "religion " to the Latin "religare," to bind again, is not generally accepted, despite the authority of Lactantius, St. Augustine, and St. Thomas,[4] must a religious person not experience his or her freedom as bound by and to what is taken to matter unconditionally and most profoundly, bound, we can say, by what is experienced as sacred?

And must the human being perhaps be bound as religion insists? I will not attempt here to tackle the issue of the relationship of religion and truth directly. But I do not believe that one can do philosophy without also doing the history of philosophy. And in the end one cannot do the history of philosophy well without going into history. In this course then I will look at four famous episodes in the history of our problem.

3

But let me begin with a few words about truth. Consider once more the conflicting claims of science and religion to be the privileged custodians of truth. Nietzsche wondered about the pathos of truth, this desire to know, just for the sake of knowing. Aristotle claimed that such a desire is natural, is inborn in every human being.

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[3] Alvin Plantinga, "Methodological Naturalism?" *Philosophical Analysis, Origins & Design* 18:1; http://www.arn.org/docs/odesign/od181/methnat181.htm.

[4] Lactantius, *Divine Institutes*, IV, xxviii, St. Augustine, *City of God*, X, iii, St. Thomas, *Summa Theologica*, II-II, Q. lxxxi, a. 1

> All men by nature desire to know. An indication of this is the delight we take in our senses; for even apart from their usefulness they are loved for themselves; and above all others the sense of sight. For not only with a view to action, but even when we are not going to do anything, we prefer sight to almost everything else. The reason is that this, most of all the senses, makes us know and brings to light many differences between things.[5]

Or consider his account of the origin of philosophy:

> For it is owing to their wonder that men both now begin and at first began to philosophize; they wondered originally at the obvious difficulties, then advanced little by little and stated difficulties about the greater matters, e.g. about the phenomena of the moon and those of the sun and the stars, and about the genesis of the universe. And a man who is puzzled and wonders thinks himself ignorant (whence even the lover of myth is in a sense a lover of wisdom, for myth is composed of wonders); therefore, since they philosophized in order to escape from ignorance, evidently they were pursuing science in order to know, and not for any utilitarian end.[6]

The desire to know testifies to the ability of the human being to raise himself, to transcend himself as a merely natural being.

> And this is confirmed by the facts; for it was when almost all the necessities of life and the things that make for comfort and recreation were present, that such knowledge began to be sought. Evidently, then, we do not seek it for any other advantage; but as the man is free, we say, who exists for himself and not for another, so we pursue this as the only free science, for it alone exists for itself.[7]

How can a Christian admit such a free science? Is the conception of such self-sufficient freedom not born of pride? Is Aristotle's wisdom not the fruit of sin?

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[5] Aristotle, *Metaphysics*, I, 980a 22-27. Trans. W. D. Ross.
[6] *Metaphysics*, I, 982b12-22.
[7] *Metaphysics*, I, 982b22-26.

The Christian suspicion of theory is only one form of a more widely held suspicion directed against all those who would speculate for the sake of speculation. Consider the anecdote Plato tells us in the *Theaetetus* about Thales, the traditional founder of philosophy. Socrates here is speaking not only of Thales, but also of himself, indeed of all true philosophers: they all have little interest in the city and its affairs, are apolitical in this sense.

> He [the philosopher] is not even aware that he knows nothing of all this, for if he holds aloof, it is not for reputation's sake, but because it is really his body that sojourns in the city, while his thought, disdaining all such things as worthless, takes wings, as Pindar says, 'beyond the sky, beneath the earth,' searching the heavens and measuring the plains, everywhere seeking the true nature of everything as a whole, never sinking to what is closest at hand.[8]

The philosopher is seen here as someone who dislocates himself, like Daedalus, whom Socrates claims for a forebear, or Icarus, who takes wings, flying all over. That is to say, the philosopher is trying to use his imagination and thought to free himself from the place in which he happens to find himself. Such dislocation and loss of place is essential to his search for the truth.

But to return to the *Theaetetus*: when Socrates is asked to explain his meaning, he replies to Theodorus by telling the story of "the Thracian maidservant who exercised her wit at the expense of Thales, when he was looking up to study the stars and tumbled down a well. She scoffed at him for being so eager to know what was happening in the sky that he could not see what lay at his feet. Anyone who gives his life to philosophy is open to such mockery."[9]

The question is whether the theoretical impulse deflects the human being from his true vocation, or allows him to fulfill that vocation, whether that theoretical curiosity

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[8] Plato, *Theaetetus*, 173d-174a. Trans. Francis Macdonald Cornford.
[9] *Theaetetus,* 174a.

which philosophy has its origin is legitimate.[10] Once again Aristotle set the stage for subsequent discussion:

> Hence the possession of it [genuine knowledge, absolute truth] might be justly regarded as beyond human power; for in many ways human knowledge is in bondage, so that according to Simonides 'God alone can have this privilege', and it is unfitting that man should not be content to seek the knowledge that is suited to him. If, then, there is something in what the poets say, and jealousy is natural to the divine power, it would probably occur in this case above all, and all who excelled in this knowledge would be unfortunate.[11]

It is easy to imagine a Christian theologian reading this with approval. Man's present condition is subject to the fall and its consequences. Among these consequences are also epistemological ones: Our sight and intellect are no longer those possessed by Adam in paradise. And even in Adam's case it was a presumption that let him listen to the snake's promise, *eritis sicut Deus*, that human beings might know as only God knows, where the specification that the claim is to a knowledge of good and evil hints that such knowledge must be distinguished from knowledge of what is the case, hints at the importance of attending to that distinction.

Aristotle, however, raises the question of the legitimacy of theory only to dismiss it:

> But the divine power cannot be jealous (indeed, according to the proverb, "bards tell many a lie"), nor should any other science be thought more honorable than one of this sort. For the most divine science is also the most honorable; and this science alone must be, in two ways, most divine. For the science which it would be most meet for God to have is a divine science; and so is any science that deals with divine subjects.[12]

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[10] See Hans Blumenberg, *Die Legitimität der Neuzeit* (Frankfurt: Suhrkamp, 1966), pp. 201-432. Especially important here is the critique of a paragraph in *Being and Time* that links theoretical curiosity to inauthenticity. See Martin Heidegger, *Sein und Zeit*, 7th ed. (Tübingen: Niemeyer, 1953), par. 36.

[11] *Metaphysics*. I, 2, 982 b.

[12] *Metaphysics*. I, 2, 983 a

In late Antiquity we meet more and more often with voices that see in this desire for knowledge just another desire that must meet with disappointment. Epicurus and Lucretius thus would rid us of such an exaggerated demand for knowledge. Cognitive resignation is seen as a precondition of happiness. But more important in this context is Augustine's critique of the desire to know. A key text is Book X of the *Confessions* and we should keep in mind that the authors of the Condemnation of 1277 followed Augustine.

> To this is added another form of temptation more manifoldly dangerous. For besides the concupiscence of the flesh which consisteth of the delight of all the senses and pleasures, wherein its slaves, who go far from Thee, waste and perish, the soul hath, through the same senses of the body a certain vain and curious desire, veiled under the title of knowledge and learning, not of delighting in the flesh, but of making experiments through the flesh. The seat whereof being in the appetite of knowledge, and sight being the sense chiefly used for attaining knowledge, it is in Divine language called the lust of the eyes.[13]

Here we have the Christian counter-position to the Aristotelian: all men by nature desire to know, desire to know just for the sake of knowing, just because they are curious. Augustine might add, perhaps, but if so, then only because nature has been corrupted by the fall, by sin: "From this disease of curiosity are all those strange sights exhibited in the theater. Hence men go out to search out the hidden powers of nature (which is besides our end), which to know profits not, and wherein men desire nothing but to know."[14] Such sentiments lead easily to a celebration of the person who remains simple, free of the false learning of the philosophers. The claim to truth has thus been understood again and again as the illegitimate appropriation of something that belongs to God. He who claims to know for himself de-legitimates himself by just that claim. It is in this context that we have to understand Descartes' attempt to interpret his method as a divine gift.

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[13] St. Augustine, *Confessions,* trans. Edward B. Pusey (New York: Modern Library, 1949), Book X, pp. 231-232.
[14] Ibid., p. 232.

This Christian suspicion of theory could and often did claim Socrates for a pagan precursor. Had not Socrates renounced his youthful excursions into the philosophy of nature and regretted such thinking that neglected the needs of the soul.[15] When the 15th century cardinal Cusanus celebrates ignorance and calls the Socratic main figure of several of his dialogues an *idiota,* an untutored, unread lay-person, he follows that theme. But with him this is only one theme. Equally prominent is another that, following Aristotle, makes the desire to know constitutive of man and then goes on to legitimate that desire by saying that since God instilled in us such a desire, it cannot be vain. It must be capable of finding the knowledge that will satisfy it. Human beings should not renounce scientific inquiry even if it can only approximate and never seize divine truth. We are here on the threshold of Renaissance humanism, although looking back one might also say that Cusanus is attempting here to reconcile Augustine and Thomas Aquinas, according to whom, translating Aristotle into a Christian context, *omnis scientia bona est,* all science is good.

I have tried to show something of the ambivalence of meditations on the gap separating God's infinite from our finite knowledge. One consequence of that gap would seem to be that we cannot gain truth relying on our own strength: the human knower can receive it only by divine grace, as a gift. On this understanding the very attempt to seize the truth is readily interpreted as a manifestation of sin. But if one side of the reflection on the gap separating the human knower and God is cognitive resignation, another is the discovery of the godlike extent of the human spirit. For how could human beings even think the tension between God's infinite power and Aristotelian cosmology if their thinking were limited by that cosmology, if there were not something infinite about the human knower?

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[15] Cf. *Phaedo*, 99d

2. The Aristotelian Cosmos and the Creation Account of the *Timaeus*

1

In my introductory remarks I suggested that the destruction of Aristotle's astronomy and physics was a presupposition, not just of the speculations of a Copernicus, but more generally, of the emergence of a distinctly modern world view. When considering any revolutionary event, we should always ask ourselves, what made those addressed by the revolutionary thinker or artist or statesman receptive to what they heard. Or, to use a different language: what makes paradigm shifts possible? I thus suggested that, had the authority of Aristotle not been undermined long before the views advanced by Copernicus and so eagerly embraced by Bruno and Galileo, Copernicus could hardly have formulated his hypotheses, and, had he done so, they would have fallen on deaf ears and been dismissed as fantastic speculations. It is precisely its role in undermining the authority of Aristotle that gives the Condemnation of 1277 its importance.

2

To make this a bit clearer let us take a closer look at the Aristotelian understanding of nature, which in many ways is in keeping with the basic picture taken more or less for granted in the Middle Ages, although in a number of crucial ways also at odds with it. Consider this image taken from an edition of Sacrobosco's *De Sphaera* that appeared in 1534, although the book itself was written 300 years earlier by one John of Holywood, an English scholar, who had made his way to the University of Paris teaching geometry and astronomy. The book turned out to be one of the enduring textbooks of the Middle Ages. *De Sphaera* provides an introduction to the geometry presupposed by the astronomy of Ptolemy and his Arabic commentators and was composed ca. 1230. It rapidly achieved popularity, and was reproduced again and again, well into the seventeenth century.

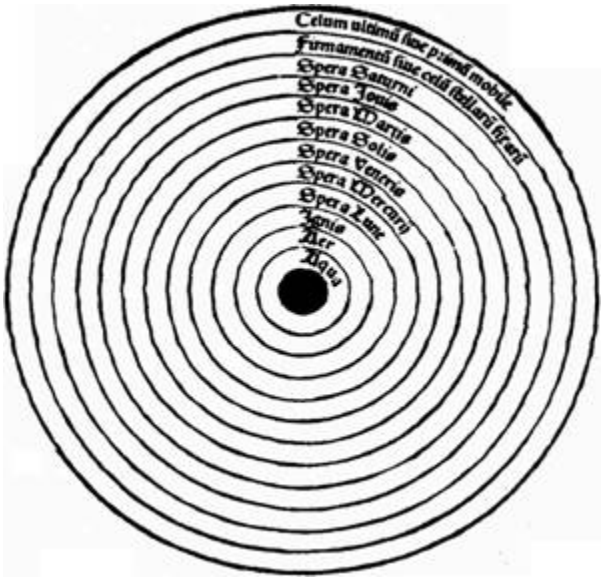

Fig. 1

The image is quite typical. The earth is shown at the center of twelve concentric circles. The lowest three are given to water, air and fire. Then comes the moon. Above the moon we get Mercury and Venus followed by the sun. Above the sun are Mars, Jupiter, and Saturn. The whole is enclosed by two circles, the first the firmament or the heaven of the fixed stars, the highest the unmoved prime mover, the motor of the whole.

The diagram shows us several key aspects of the medieval worldview: the universe God created is finite. Space is heterogeneous and value laden. Up means better. The medieval cosmos is organized hierarchically. God is a geometer. The circle governs the organization of the cosmos.

Of special significance is the division of the cosmos into a sublunar sphere that knows death and decay, where motion is fundamentally linear, up and down, and a superlunar realm that knows only the perfection of untiring circular motion.

But here already we come to a first disagreement with the Aristotelian and the Biblical, and not just the Christian view. According to Aristotle the cosmos has neither beginning nor end. It endures forever. The Bible on the other hand speaks of God creating the world. Neither position, Kant was to argue in the first antinomy, is intelligible to us.

But first let me turn to a point on which there was substantial agreement: the spatial finitude of the cosmos. Why insist on the finitude of the cosmos? Our very understanding of space would seem to argue against it. Can we think a limit of space? Think of Descartes and his supposedly clear and distinct understanding of *res extensa*. How can we think of a limit to space and therefore to the universe? And similar difficulties emerge when we are asked to think a beginning of the universe as modern cosmology and the Biblical creation account would have us do. Does the antinomy with respect to time, not have to be restated with respect to space: that we cannot make sense either of a finite, nor of an infinite cosmos, as is also asserted by Kant in his first antinomy.

But let us return to space. Why reject an infinite universe? One difficulty is that in such a universe it becomes difficult to speak of absolute place and therefore of absolute motion. Given the infinity of space, what sense can we make of motion at all?

It was indeed his understanding of motion, more generally we can say, it was above all Aristotle's physics that forced him to reject thoughts of a spatially infinite world. Aristotle was very clear about this connection:

> All movement is either compulsory or according to nature, and if there is compulsory movement there must also be natural; but how can there be *natural* movement if there is no difference throughout the void or the infinite? For in so far as it is infinite, there will be no up or down or middle, and in so far as it is a void, up differs no whit from down, for there is no difference in what is nothing, there is none in the void…; but natural locomotion seems to be differentiated, so that the things that exist by nature must be differentiated. Either, then, nothing has a natural locomotion, or else there is no void…
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> Further, no one could say why a thing once set in motion should stop anywhere; for why should it stop *here* rather than *here*? So that a thing will either be at rest or must be moved *ad infinitum*, unless something more powerful gets in its way.[16]

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[16] Aristotle, *Physics* IV, 8, 215 a. Trans. R. P. Hardie and R. K. Gaye.

3

Each consideration deserves our careful attention. The first suggests that we cannot think empty space. Place has priority over space. Our everyday experience would seem to support Aristotle. How do we experience the world in which we find ourselves? We find ourselves here, in this specific place, on earth and under the sky. That the earth is not flat is something of which every sailor is made quickly aware. The thought that the earth is a globe was thus common knowledge long before Aristotle. The tale, that it took a Columbus or a Magellan to prove that the earth was not flat, is of course a mere tale. Think of the experience of the moon, waxing and waning, the full moon always opposite the sun, rising just as the sun is setting; or of the experience of ship disappearing over the horizon. Our experience seems to tell us that we find ourselves on a spherical earth, enclosed by the starry firmament, where the very word "firmament" suggests that the stars stay fixed in their places, circled by moon, sun, and the five visible planets.

And note how our figure suggests that there is indeed a sense in which medieval astronomy, too, here assigned the sun a central place among the planets, was heliocentric in that specific sense.

4

The second part of the quote is of special interest, for Aristotle seems to be entertaining here the Galilean thought of inertia, only to reject it. But if one were to break with the, to Aristotle so evident, idea of natural movement, Newton's first law of motion,[17] which states that, if a body is at rest or moving at a constant speed in a straight line, it will remain in that condition unless acted on by some force, would seem almost inescapable. Aristotle to be sure would have rejected any such suggestion as a fantastic hypothesis. His whole theory of motion presupposes that we can make sense of up and

[17] Newton's three laws:
1. An object in motion will remain in motion unless acted upon by a force.
2. Force equals mass multiplied by acceleration.
3. To every action there is an equal and opposite reaction.

down, presupposes what subsequent thinkers will consider no more than part of the natural illusion that lets us earth dwellers place ourselves near the center of the cosmos. But Aristotle is convinced that the space of geometry may not be confused with the space of physics, convinced that if we are to make sense of the world around us we have to recognize that there is such a thing as natural place. His four elements thus each have their proper place in the spheres below the moon. It is natural for earth to seek to come down, for fire to rise; water and air have their places in between.

Depending on how a body is constituted out of these elements, it will seek its proper place. The moon marks the threshold that separates the realm where there is death and decay from the realm where everything moves eternally in perfect circles.

5

We may wonder why, given this model, motion in the sublunar realm would not have come to an end long ago, namely when every element had finally found its proper place. What is the motor that allows for continuing change? Aristotle's answer is that under the influence of the sun the elements will transform themselves endlessly. Think of ice, which when heated turns into water; heated further, water evaporates, turns into air; while air, in turn, when cooled, condenses, falls down as water, which when cooled still further turns back into solid ice. And does this cycle not give us a first clue to the endless cycling of nature? When the sun, this hearth of the cosmos, approaches the earth there will be a greater upward tendency, when it moves away from it we will meet with the reverse: a greater downward movement. The sun is thus responsible for the changing seasons, for new growth followed by decline and by death. The sun is the motor of the sublunar realm. If the revolutions of the heavens were to stop, and with it the motion of the sun, so would sublunar notion.

6

Aristotle did not believe that we were in a position to offer a definitive model explaining the motion of the planets, of the sun and the moon. The astronomer, he thought, had to settle for less than absolute truth,

Here are some key passages from *Metaphysics*, Book XII:

> 1073a 24-34: The first principle or primary being is not movable either in itself or accidentally, but produces the primary eternal and single movement. And since that which is moved must be moved by something, and the first mover must be in itself unmovable, and eternal movement must be produced by something eternal and a single movement by a single thing, and we see that besides the simple, spatial movement there are other spatial movements — those of the planets — which are eternal (for the body which moves in a circle is eternal and unresting; we have proved these points in the *Physics*), each of these movements must be caused by a substance unmovable in itself and eternal.

What here is acceptable to the Christian and what not?

Aristotle goes on to point out that each planet has more than one movement and suggests that the number of spheres necessary to explain the phenomena could reasonably be assumed to be 49 or perhaps 55: "the assertion of necessity, must be left to more powerful thinkers."[18]

Ptolemy, writing in Alexandria, ca. 150 AD, in his *Almagest* was forced to grant that even the order of the spheres of sun, moon, and the five planets could not be definitively established and that his in places *ad hoc* construction of the motion of the planets could be reasonably challenged by other hypotheses.

> But concerning the spheres of Venus and Mercury, we see that they are placed below the sun's by the more ancient astronomers, but by some of their successors these, too, are placed above the sun's, for the reason that the sun has never been obscured by them either.[19]

Ptolemy prefers the older order, which places the sun in the middle of the planets, but he is quite aware that he has not offered a decisive argument.

Supported by such authorities, the Middle Ages were pretty much convinced that the astronomer had to settle for less than the truth, had to be content to "save the phenomena," a phrase that goes back to Plato's *Timaeus*.

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[18] Aristotle, *Metaphysics* XII, 8, 1074a10-17. Trans. W. D. Ross.

[19] *Ptolemy's Almagest*, trans. and annotated by G. J. Tomer (Princeton: Princeton University Press, 1998), XI, 1 and 2, pp. 419-423,

> Now it is all important that the beginning of everything should be according to nature. And in speaking of the copy and the originals we may assume that words are akin to the matter which they describe; when they relate to the lasting and permanent and intelligible, they ought to be lasting and unalterable, and, as far as their nature allows, irrefutable and invincible — nothing less. But when they express only the copy or likeness and not the eternal things themselves, they need only be likely and analogous to the former words. As being is to becoming, so is truth to belief. If then, Socrates, amidst the many opinions about the gods and the generation of the universe, we are not able to give notions which are altogether and in every respect exact and consistent with one another, so not be surprised. Enough if we adduce probabilities as likely as any others, for we must remember I who am the speaker and you who are the judges are only mortal men, and we ought to accept the tale which is probable and inquire no further.[20]

We meet here with a kind of cognitive resignation that appealed to medieval thinkers, especially when they were concerned with a part of nature thought to be essentially inaccessible. Thomas Aquinas, e.g., pointed out, supported by Ptolemy, that constructions using eccentrics and epicycles were not sufficient to establish truth, since other explanations are also able to save the phenomena.[21] We can thus speak of the cognitive resignation of medieval astronomy.

7

Even from the little I have said so far it should be evident that there is a profound incompatibility between the Aristotelian and the Christian account of creation. Aristotle teaches that the world has no beginning. But did the Bible not teach that God created the world *ex nihilo*. Small wonder that Christians should have found the account of creation Plato offers in the *Timaeus* much more to their liking. Here they could find a Pagan

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[20] Cf. Plato, *Timaeus*, 29b-d.

[21] Thomas Aquinas, *ST* II, 32, art 1ad2, *Commentaria in libr. Arist. de caelo et mundo*, XII, 17.

version of their own creation account, with Plato's demiurge taking the place of the Christian god. Let me rehearse some aspects of this account:

Timaeus 29d-37a.

> Let me tell you then why the creator made this world of generation. He was good, and the good can never have any jealousy of anything. And being free from jealousy, he desired that all things should be as like himself as they could be… Wherefore also finding the whole visible sphere not at rest, but moving in an irregular and disorderly fashion, out of disorder he brought order, considering that this was in every way better than the other. Now the deeds of the best could never be or have been other than the fairest, and the creator, reflecting on the things which are by nature visible, found that no unintelligent creature taken as a whole could ever be fairer than the intelligent taken as a whole, and again that intelligence could not be present in anything which was devoid of soul. …
>
> In order then that the world might be solitary, like the perfect animal, the creator made not two worlds or an infinite number of them, but there is and ever will be one only-begotten and created heaven.
>
> Now that which is created is of necessity corporeal, and also visible and tangible. And nothing is visible where there is no fire, or tangible which has no solidity, and nothing is solid without earth. [Timaeus goes on to introduce air and water as necessary to mediate between fire and earth.] Wherefore he made the world in the form of a globe, round as from a lathe, having its extremes in every direction equidistant from the center.
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> [Timaeus goes on to describe the creation of the world soul, which is responsible for the order of the universe.] The body of heaven is visible, but the soul is invisible and partakes of reason and harmony, and being made by the best of intellectual and everlasting natures, is the best of things created.

The soul here corresponds to the laws of nature, which are also invisible. We don't see the force that rules the motions of the heavens, as we see a star. Much here must have appealed to a Christian, especially so, given the metaphorical nature of the Platonic account, which does not want to be understood as literally true. But note that while the world now is described as created, which suggests a beginning, there still is an obvious incompatibility with the Christian view. The Christian God created what is *ex nihilo*. He did not take up some pre-given matter and then shaped it as best he could. The creation account of the *Timaeus* conflicts with the dogma of the creative omnipotence of God. This dogma poses a problem, given that there is so much in the world that does not seem perfect, even evil. I shall return to this problem in our next session.

3. Christian Appropriations of the Greek Understanding of Nature

1

That there should have been tension between the Greek and the Biblical accounts of Nature should be evident.

Both Plato and Aristotle understand things as formed matter. That seems sort of obvious. Think of a rock, a leaf, an animal, a pot. As Heidegger observes, this understanding of things fits the last, i.e. the humanly produced work, especially well, so well in fact that we begin to wonder whether we have not illegitimately read human work into the essence of things. A pot is the sort of thing we know how to make. And does this not give us a key to the being of things in general? It seems natural to think other things, too, in the image of the pot or a hammer. Aristotle's doctrine of four causes is readily suggested by such an understanding: there is the maker (the efficient cause), the end he had in view (the final cause), the matter of which the thing is made (the material cause), and the shape or form imposed on the matter (the formal cause).

But how adequate is the matter-form distinction? Heidegger raises this question in *The Origin of the Work of Art*.

> Form and content are the most hackneyed concepts under which anything and everything can be subsumed. And if form is correlated with the rational and matter with the irrational; if the rational is taken to be the logical and the irrational the alogical; if in addition the subject-object relation is coupled with the conceptual pair form-matter; then representation has at its command a conceptual machinery that nothing is capable of withstanding.[22]

But once again that seeming obviousness invites questioning: "Where does the matter-form structure have its origin — in the being of the thing or the being of equipment?"[23] To approach this question Heidegger goes on to contrast two things, a block of granite and a piece of equipment.

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[22] Martin Heidegger, "The Origin of the Work of Art," *Poetry, Language, Thought*, trans. and intro. Albert Hofstadter (New York: Harper and Row, 1971), p. 27.
[23] *Ibid*., p. 28.

> The self-contained block of granite is something material in a definite if unshapely form. Form means here the distribution and arrangement of the material parts in spatial locations, resulting in a particular shape, namely that of a block. But a jug, an ax, a shoe are also matter occurring in a form. Form as shape is not the consequence here of a prior distribution of the matter. The form, on the contrary, determines the arrangement of the matter. Even more, it prescribes in each case the kind and selection of the matter — impermeable for a jug, sufficiently hard for an ax, firm, yet flexible for shoes. The interfusion of form and matter prevailing here is, moreover, controlled beforehand by the purposes served by jug, ax, shoes.[24]

Does the form-matter distinction operate the same way in the two cases? Does it seem more obvious in one than in the other? It would indeed seem that the understanding of things as formed matter is read off such humanly made things as a jug, or any other piece of useful equipment.

The *Timaeus* invites us to understand things in this way by having the creator of the world act in the manner of a human craftsman. And the Bible, too, would seem to offer support for this way of looking at the being of the thing: Is not God the master craftsman, who has made all that is? Is not every being, other than God, an *ens creatum,* a created thing? But to repeat, the conception of an omnipotent, omniscient God who creates all that is *ex nihilo*, out of nothing, also makes it impossible to think of matter as resisting the divine craftsman. Nothing can resist God. God creates whatever he wills. And nothing is hidden from his knowledge. All things are completely open to the divine understanding. This understanding of the thing leads to a changed understanding of truth.

2

Traditionally truth is thought to reside in our judgments or assertions. As Thomas Aquinas' often repeated definition puts it": *Veritas est adaedquatio rei et intellectus*, "Truth is the adequacy of thing and intellect."[25] But how are we to understand such adequacy?

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[24] Ibid.

[25] Thomas Aquinas, *De Veritate,* qu. I, art 1.

Note that the stated definition invites two readings: *Veritas est adaedquatio intellectus ad rem*, "Truth is the adequacy of the intellect to the thing" and *Veritas est adaedquatio rei ad intellectum*, "Truth is the adequacy of the thing to the intellect. The first we might consider the ordinary understanding. Think of the truth of some thought or proposition. It is true when the matter in question is indeed as it is thought or asserted to be. But the second, too, is familiar. Take this example: I ask you to draw a circle and praise the figure you have drawn by saying: this is a true circle! How is the word "true" here being used? The true circle is the result of an action that is totally adequate to the intention.

But must not divine making be of that sort? In this sense we can speak of the truth of things. Being omnipotent and omniscient everything God creates is adequate to what He intended. There is no gap between intention and the work produced. In this sense every *ens*, every being other than God, is a created thing, an *ens creatum* and as such true, *verum*. *Verum* is a transcendental. And is it not in this truth of things that our human truth must have its measure? We call a proposition true if it corresponds to the way things really are, to the way they are in truth. The truth of propositions may thus be said to have its measure in the truth of things. But how is this latter truth to be understood? Christian theologians, as we have seen, had a ready answer. Things are in truth the way they are in God's understanding. We can speak here of a theocentric conception of truth. To seize the truth, to know reality as it is, we would have to place ourselves in God's position; but this is denied to us finite knowers.

3

This is related to what we can call the astronomical resignation of the medievals. Thomas Aquinas, e.g., had pointed out, that constructions using eccentrics and epicycles were not sufficient to establish truth, since other explanations are also able to save the phenomena.[26] We are somewhat in the position of someone who is trying to understand the movements of the hands of a clock. Different arrangement of the wheels can help to explain these movements. But how do we decide which one is right? The medieval

[26] Thomas Aquinas (ST II, 32, art 1ad2, *Commentaria in libr. Arist. de caelo et mundo*, XII, 17)

astronomer found himself very much in this sort of position. And there were other problems. Was not Ptolemy forced to grant that the order of the spheres of sun, moon, and the five planets could not be definitively established and that his, in places *ad hoc*, construction of the motion of the planets could be reasonably challenged by other hypotheses?[27] Had not Plato and Aristotle already admitted that the astronomer had to settle for less than absolute truth, the latter suggesting that the number of spheres necessary to explain the phenomena could reasonably be assumed to be 49 or perhaps 55: "the assertion of necessity, must be left to more powerful thinkers."[28] Supported by such authorities, the Middle Ages were pretty much convinced that the astronomer had to settle for less than the truth, had to be content to save the phenomena, a phrase that, as I pointed out, goes back to Plato's *Timaeus*.[29] And so later Tiedemann Giese, bishop of Kulm, could warn Copernicus that hf should not aspire to outdo Ptolemy, king of astronomers: had Averroes not been right to insist that epicycles and eccentrics had no place in God's creation, that Ptolemy's astronomy was useful only for calculation and could in no way claim to describe how things were in truth?[30] Truth in such matters was reserved to God. Copernicus laid claim to truth in a stronger sense.

4

Faith in an omnipotent, omniscient, and good God also had to make evil a problem, as I pointed out last time. How was evil even possible? The Platonic myth of creation offers a ready answer. Unlike the Biblical God, "the Platonic demiurge is not omnipotent; he is confronted with matter, which he must employ in his work as a formless substrate of unknown origin; he must rely on the power of the reason to which

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[27] *Ptolemy's Almagest*, trans. and annotated by G. J. Tomer (Princeton: Princeton University Press, 1998), XI, 1 and 2, pp. 419-423,

[28] Aristotle, *Metaphysics* XII, 8, 1074a10-17. Trans. W. D. Ross.

[29] Cf Plato, *Timaeus*, 29b-d.

[30] Nicolaus Copernicus, *Das neue Weltbild, Drei Texte, Commentariolus, Brief gegen Werner, De revolutonibus I,* Lateinisch-deutsch, trans. , ed., and intro., Hans Günter Zekl (Hamburg: Meiner, 1990), p. xxiv.

he has delegated his work."[31] But while reason can persuade, it cannot totally overpower blind necessity; here lies the ineliminable source of disorder, i.e. of evil. "There remains a residue of undefined incongruity and on this rests the entire burden of the explanation of the fact that in this world there are *also* evil things."[32] Neo-Platonism underscored this lack of congruence, heightened the opposition between the things of this world and the ideal forms. The world appears now as marred by its failure to meet the challenge of the divine. The source of that failure is of course matter, which thought in active opposition to the ideal, assumes an increasingly demonic cast.

> What could at one time be conceived of as the subjection of necessity to rational persuasion, namely the formation of the world, is now the confinement of the world soul in the womb, — or better: the prison — of matter. For Plotinus the world comes into being through the fall of this world soul, which is deceived by matter and lost in it.[33]

On this view the world has its origin not just in matter, but in the world soul's fall into the world. The ensuing disorder can only be overcome by a reversal of that fall, by a homecoming of the world soul to itself. Evil is given its origin in the disorder resulting from that fall. The account invites comparison with the Biblical story of the fall, which, however, shifts the burden from the world soul unto the individual.

The problem of the origin of evil is given a far more radical answer by gnosticism, which denies the ancient understanding of a well-ordered cosmos as man's home, just as it denies orthodox Christianity its conjunction of creation and redemption as both the work of one God. And does gnosticism not have reason on its side? How could a God, who is both good and omnipotent, have created a world that includes wickedness, pain, and death? Gnosticism answered this question by interpreting the creator God as the source of evil, radically opposed to the transcendent God of salvation, who has

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[31] Hans Blumenberg, *Säkularisierung und Selbstbehauptung* (Frankfurt am Main: Suhrkamp, 1974), p. 146; trans. Robert M. Wallace, *The Legitimacy of the Modern Age* (Cambridge: MIT, 1983), p. 127.
[32] *Säkularisierung und Selbstbehauptung,* p, 146; *The Legitimacy of the Modern Age,* p. 127 - 128
[33] *Säkularisierung und Selbstbehauptung,* p. 147; *The Legitimacy of the Modern Age,* p. 128

nothing to do with the cosmos, which comes to be understood as a "vast prison whose innermost dungeon is the earth, the scene of man's life."[34] Through his body and soul, man is "part of the world and subjected to the tyrannical rule of the archons, who created man for the express purpose of keeping the spirit captive in the world."[35] The creation of world and man are understood as part of the drama of the enslavement of the spirit. This drama leaves no room for an understanding of the word as man's home. To truly come home, the spirit has to leave this world into which it has fallen. The world is evil in its very essence.

Evil should not be understood here first of all as "moral evil." As Elaine Pagels points out,

> The Greek term *kakía* (like the English term "ill-ness") originally meant "what is bad" — what one desires to avoid, such as physical pain, sickness, suffering, misfortune, every kind of harm. When followers of Valentinus asked about the source of *kakía*, they referred especially to emotional harm — fear, confusion, grief. According to the *Gospel of Truth*, the process of self-discovery begins as a person experiences the "anguish and terror" of the human condition, as if lost in a fog or haunted in sleep by terrifying nightmares. Valentinus' myth of humanity's origin, as we have seen, describes the anticipation of death and destruction as the experiential beginning of the gnostic's search. "They say that all materiality was formed from three experiences [or: sufferings]: terror, pain, and confusion [*aporia*; literally, 'roadlessness,' not knowing where to go]."[36]

Presupposed by gnosticism is a profound sense of confusion, of dislocation. To be sure, gnosticism still understands the world as cosmos, as order,

> but order with a vengeance, alien to man's aspirations. Its recognition is compounded of fear and disrespect, of trembling and defiance. The blemish of nature lies not in any deficiency of order, but in the all too

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[34] Hans Jonas, *Gnostic Religion; The Message of the Alien God and the beginnings of Christianity* (Boston, Beacon Press,1972), p. 43.
[35] Jonas, p. 43.
[36] Elaine Pagels, *Gnostic Gospels* (New York : Random House, 1979). p. 172.

> pervading completeness of it. Far from being chaos, the creation of the demiurge, unenlightened as it is, is still a system of law. But cosmic law, once worshipped as an expression of reason with which man's reason can communicate in an act of cognition, is now seen only in its aspects of compulsion which thwarts man's freedom. The cosmic *logos* of the Stoics, which was identified with providence, is replaced with *heimarmene*, oppressive cosmic fate. ...The starry sky — to the Greeks since Phythagoras the purest embodiment of harmony — now stared man in the face … powerful as before, the stars have become tyrants — feared but at the same time despised, because they are lower than man. ... Under this pitiless sky, which no longer inspires worshipful confidence, man becomes conscious of his utter forlornness. Encompassed by it, subject to its power, yet superior to it by the nobility of his soul, he knows himself not so much part of, but unaccountably placed in and exposed to, the enveloping system.[37]

Fundamental to gnosticism is the experience of homelessness, of having been cast into a world that withholds what we most deeply want; the other side of this experience are dreams of redemption from this world, of a homecoming to the totally other.

To understand the perennial appeal of gnosticism, we have to understand the extent to which this sense of homelessness is part of human self-understanding.

5

How did Christianity answer this problem? By shifting the burden unto human beings. Augustine is a crucial figure. But let me turn here to another exemplary text by the 9th century Irish philosopher John Scotus Eriugena. In his *The Division of Nature* we read:

> For if man had not sinned, he would certainly not have fallen into so profound ignorance of himself, just as he would not have suffered the ignominious generation from the two sexes in the likeness of irrational

[37] Jonas, pp. 328 - 329.

> animals, as the wisest of the greek theologians affirm with most certain reasons. For he who alone was born into the world without sin, namely the Redeemer of the world, at no time and at no place endured such an ignorance.[38]

Only pride, the claim to divine self-sufficiency caused the human being to be divided into male and female. Only sin lowered us human beings to the level of the beasts. rendering us mortal and alone. In Jesus Christ our original being is not only revealed, but as both man and God, he presented himself as a parable of the resurrection to come. What is now divided will then be reunited. We will be restored to the unity of our true human nature, when there will be no sexual difference, no separation of earth and paradise, but we will be entirely thought.

Eriugena would seem to have read Plato's *Symposium*, more especially the account the Platonic Aristophanes gives of the nature of love. Aristophanes begins by describing an original state of mankind:

> First of all, you must learn the constitution of man and the modifications which it has undergone, for originally it was different from what it is now. In the first place there were three sexes, not, as with us, two, male and female; the third partook of the nature of both and has vanished, though its name survives. The hermaphrodite was a distinct sex both in form as well as in name, with the characteristics of both male and female, but now the name alone remains, and that solely as a term of abuse. Secondly, each human being was a rounded whole, with double back and flanks forming a complete circle; it had four hands and an equal number of legs, and two identically similar faces upon a circular neck, with one head common to the faces, which were turned in opposite direction."[39]

We should note the symmetry of the genders in Aristophanes' discussion. The privileging of the male, so evident in the speeches that preceded his in the *Symposium*,

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[38] John Scotus Eriugena, *The Division of Nature*, Book 4. Selections from medieval Philosophers, ed. and trans. Richard McKeon, vol. I (New York: Scribners, 1957), p.135.
[39] 189d-190a. Trans. Christopher Gill.

has pretty much disappeared. The circular shape here suggests the self-contained plenitude of these original human beings. And yet, they must not have been altogether complete, for if they had not felt something to be lacking they would not have turned against the gods and dared to scale heaven, claiming the gods' place for themselves.

> Their strength and vigour made them very formidable, and their pride was overweening; they attacked the gods, and Homer's story of Ephialtes and Otus attempting to climb up to heaven and set upon the gods is also related of these beings. (190b)

To punish this act of hubris Zeus decides to split these original human beings in two. Here is how Zeus explained his decision:

> "I think," he said, "that I have found a way by which we can allow the human race to continue to exist and also put an end to their wickedness by making them weaker. I will, cut each of them in two; in this way they will be weaker, and at the same time more profitable to us by being more numerous. They shall walk upright on two legs. If there is any sign of wantonness in them after that, and they will not keep quiet, I will bisect them again, and they shall hop on one leg" (189c-d)

Note the resemblance to the Biblical account of the fall. Before the fall Adam and Eve are supposed to have been at one with themselves, well provided for in paradise. But this original state of perfection must have been flawed in some way; otherwise they could not have fallen. The devil had found his way into paradise. And in Adam, too, this lack of perfection manifests itself as pride. Both Plato's Aristophanes and *Genesis* make pride the source of the fall. But the pride that let Adam fall presupposes freedom, a freedom that refuses to be subject to the dictates even of God.

The similarities between the two accounts makes it hardly surprising that they should have come to be joined, as in the passage by Eriugena I just read to you. Note the pervasive dialectic: the old, androgynous Adam fell and was split into two sexes. Thus he was made incomplete, lacking, although once more there must have been some imperfection present from the very beginning, otherwise there would have been no possibility of sin.

The lack of man in his present condition is tied by Eriugena first of all to his transitoriness. Simply as temporal, human being is lacking. We know that someday all that we are and can accomplish will be past, setting us to dream of a present that could not be overtaken by time. This "ill will against time," as Nietzsche was to call it, is at the very center of the Platonic tradition and more specifically of its conception of *eros*. To consciously live in time is to experience oneself as incomplete, as a fragment. Our understanding of time brings with it a desire for completeness. In his *Zarathustra* Nietzsche calls that ill will against time the spirit of revenge and understands it as the deepest source of human self-alienation.

Eriugena emphasizes next the isolation of the individual. This isolation, too, can be linked to the theme of time. Precisely when the individual faces his own death, he is forced to recognize his individuality. Mortality and individuality seem inseparably related. The person who tries to hold on to himself as an individual cannot help but fear death.

And finally Eriugena emphasizes the division of the sexes. Like all desire, sexual desire shows us human beings to be lacking, as incomplete, split off from the whole, while at the same time it forces us to recognize the way our bodies tie us into time.

We should also note that in Eriugena the spiritual is privileged in a way that has no counterpart in the Aristophanic account.

6

Note how the fall is understood here to have transformed both us human beings and our relationship to nature, indeed nature herself. And is it not our task to accept the burden placed on us by Adam's fall and that is to say our present condition.? Just as pride caused Aristophanes' circle-men to be split and Aristophanes admonishes us to accept our present condition as halves of a lost whole, lest we be split again and forced to hop on one leg, so pride caused Adam to fall and may lead us fallen humans to claim a plenitude denied to us, with comparably disastrous results.

This warning can be given an epistemological cast, as a warning not to claim for humans a knowledge that belongs to God. Is truth not also the property of God, not to be claimed by us finite knowers?

It can also be given an ethical expression: we should not pretend to be self-sufficient, in need neither of others nor of God. We have to accept this twofold need and turn in love to our fellow human beings and to God, who revealed the truth that should bind us.

4. The Arab Aristotle

1

That there is tension between Greek philosophy and Christian faith should by now have become obvious; also that Christianity would seem to have more difficulty with Aristotle than with Plato. Especially Aristotle's science of nature would have had to make a Christian uneasy. Let me recall some of the key features of the Aristotelian cosmos: it is finite, enclosed by the firmament. What is outside the celestial sphere? According to Aristotle this is a meaningless question. Space has to be understood in terms of place. Place in turn is to be understood in terms of a thing's relationship to some container. The celestial sphere contains all that is. It therefore has no location.

And yet this seems difficult to think. Aristotle would have granted this. The space of geometry is indeed infinite. But it should not be confused with real space, which is finite. Modern cosmology raises similar questions, not only with respect to space, but also with respect to time. Aristotle's cosmos, on the other hand, has no beginning, but is eternal. The Christian would have to deny this.

There is another difficulty. Aristotle's nature is governed by necessity. There is no room in that cosmos for miracles that would disrupt the cosmic order. But for medieval Christians miracles were very much part of the world they thought they experienced. If the Aristotelian science made it difficult to make sense of such miracles, should we not say: all the worse for Aristotle? Should the omnipotent Deity be imprisoned in the cage of human science? The need to safeguard the creative omnipotence of God was indeed a prime motivation for the Condemnation of 1277. Catholic orthodoxy here defended itself against the rapidly growing popularity of Aristotle.

2

The Condemnation was not an isolated event. As the thought of Aristotle was becoming ever more popular in the 13th century, so was uneasiness with some of the implications of that thought. But first a few words about its growing popularity.

A crucial role was played here by the city of Toledo in Spain, a very old city with an extraordinarily interesting history. Until 1085, when it was taken by Alfonso VI of Castile, it had been under the rule of the Caliphate of Cordoba. Until the expulsion of Muslims and Jews from Spain in 1492, this was a city known for its tolerance. Here Moslems, Christians, and Jews lived in harmony for centuries. It was the French archbishop of this remarkable city, one Francis Raymond de Sauvetât, or Raymond of Toledo, archbishop from 1125 to 1152, who promoted the translation of the works of the great Arab philosophers.

This raises the question: why did the West have to rely on the Arab world at this time for a much more comprehensive understanding of Greek philosophy, especially of Aristotle?

In Western Europe the barbarian invasions had disrupted Greco-Roman culture. In the East philosophy had survived in such centers as Alexandria and Athens, although in 529 the Emperor Justinian ordered the closing of the philosophical schools in Athens. Greek philosophy was, however, brought to Asia by individuals who had studied in these schools. Syria (Edessa), Mesopotamia, and Persia (Nisibis and Gandisapora) became the centers of philosophy. The rise of Islam did not stop this development (622 hegira, beginning of Mohammedan era) and when in 762 Baghdad became the political center of the Arab world, it also became the center of philosophical culture. The first great Arab philosopher is Alkindi, who lived in Basra and then in Baghdad. He died in 873. His *De intellectu et intellecto*, *On Understanding and the Understood*, deserves special mention. Alkindi there claimed to interpret Aristotle's distinction between the Possible and the Active Intellect. We shall return to that distinction presently. Here I just want to point out that according to him all our concepts are the work of one supra-individual intelligence, the same for all humanity, that enters the souls of individuals and renders what is only potential actual. Alkindi thought this to be in agreement, not just with what Aristotle, but also with what Plato taught. Indeed, Arab philosophy saw little difference between the two. And it is not difficult to understand why one might want to join the thought of the two in this fashion.

A second great Arab philosopher is Alfarabi. Born in Turkestan, ca. 870, he later studied in Baghdad, and spent much of his life in Aleppo. He died about 950. In "The

Letter Concerning the Intellect," unfortunately not included in the 3rd edition of Hyman and Walsh's *Philosophy in the Middle Ages*, we find him following Aristotle and drawing a distinction between four different senses of intellect: 1. intellect in potentiality; 2. intellect in actuality; 3. acquired intellect; 4. agent intellect. Let us briefly consider each in turn:

1. Intellect in potentiality:

> The intellect which is in potentiality is some soul or part of a soul, or one of the faculties of the soul, or something whose essence is ready and prepared to abstract the quiddities of all existing things and their forms from their matters, so that it makes all of them a form for itself or forms for itself.[40]

The intellect in potentiality is ready to receive the abstract essences of things. Such readiness should not be confused with the power to actually furnish these essences. Of special interest in this connection is the example of the wax:

> Now if you imagine some corporeal matter, for example, a piece of wax on which an impression is stamped, and that impression and that form comes to be in its surface and its depth and that form gets possession of all of matter so that the matter in its complete totality becomes that form because the form is spread out in it — then your imagination is close to picturing the manner in which the forms of things come to be in that essence which is like matter and substratum for that form. But [the wax] differs from the other corporeal matters, because the [other] corporeal matters only receive the forms in their surfaces, not in their depths. The essence of this essence [the essence of the intellect in potentiality] does not remain distinguished from the forms of the intelligibles, so that it [the intellect] has a distinct quiddity and the form in it has a distinct quiddity, but this essence itself becomes those forms. This is as if you were to imagine the impression and the formation through which a piece of wax is formed cubic or spherical, and this formation sinks into it, spreads through

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[40] Arthur Hyman and James J. Walsh, eds. *Philosophy in the Middle Ages*, 2nd ed. (Indianapolis: Hackett, 1973), p. 215.

> it, and takes possession of its length, breadth, and depth. Then the wax will have become that very formation without there belonging to it a distinction between its quiddity and the quiddity of that formation.[41]

The intellect in potentiality is thus like some intellectual matter ready to receive certain forms that totally transform it. When it has received these forms, in this sense possesses them, it becomes

2. Intellect in actuality:

> Before they were abstracted from their matters they were intelligibles in potentiality, but when they were abstracted, they became intelligibles in actuality, because they became forms for that essence. But that they are intelligibles in actuality and that [the intellect] is an intellect in actuality is the very same thing. The meaning of our statement concerning [the intellect] that it is thinking, is nothing else but that the intelligibles become forms for it, according as it itself becomes those forms.[42]

To think is to have thoughts; but to have thoughts, these thoughts have to have been abstracted from their respective matter.

The intellect in actuality Alfarabi points out, can think itself:

> And when it [the intellect] becomes an intellect in actuality in respect to all intelligibles and it becomes one of the existing things because it became the intelligibles in actuality, then, when it thinks that existent thing which is an intellect in actuality, it does not think an existing thing outside of itself [or; its essence] but it only thinks itself [or: its essence].[43]

3. Interesting is the suggestion that the intellect in actuality is like matter for the acquired intellect.

> Now, the acquired intellect is like the form for the intellect which is in actuality, and the intellect in actuality is like a substratum and matter for the acquired intellect, and the intellect which is in actuality is like a form

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[41] Ibid.
[42] Ibid., p. 216.
[43] Ibid.

> for that essence [the intellect in potentiality] and that essence is like matter.[44]

To become educated, to acquire intellect in this sense we have to be able to think. This is how we can understand "the intellect in actuality is like a substratum" for the acquired intellect. But intellect can become actual only where there is a potential for thinking.

Alfarabi goes on to arrange these intellects in a hierarchy that extends from prime matter to the acquired intellect, which is the highest to which things related to matter can ascend.

> But if one ascends from prime matter step by step, then one ascends to the nature which is the corporeal forms in hylic matters until one ascends to that essence [the intellect in potentiality], afterwards to that which is above until, when one has reached the acquired intellect, one will have reached that which is like the stars and one will have reached the limit to which those things which are related to hyle and matter can ascend. When one ascends from this, then one will have ascended to the first stage of existing things which are immaterial, and the first stage is the stage of the agent intellect.

This places us on the threshold of 4.

> The relation of the active intellect to the intellect which is in potentiality is like the relation of the sun to the eye which is in potentiality as long as it is in darkness. And sight is sight in potentiality only as long as it is in darkness. The meaning of darkness is transparency in potentiality and the privation of transparency in actuality, and the meaning of transparency is illumination by something opposite which is luminous.[45]

Alfarabi here relies on the Platonic solar metaphor. And that metaphor may also help us to understand what he has in mind.

> But we have stated that the agent intellect is separate from every matter. Since it is like this, it always exists in its ultimate perfection and it must necessarily change from relation to relation. Now the defect [namely that it

[44] Ibid., p., 217.
[45] Ibid., p., 218.

> acts at times and not at others], does not come from its essence, but either from the fact that the agent intellect does not encounter something in which it can act because there does not exist prepared the matter or the substratum in which it can act, or from the fact that it has an impediment from outside of it, so that it ceases, or from both of these things together. From this it is clear that that there is not in [the agent intellect] sufficiency through which it is the first principle of all existing thing, for it requires that there be ready a matter in which it can act and that it lacks an impediment.[46]

The agent intellect as here discussed can thus not be equated with the Biblical God. It is closer to Plato's demiurge, even lower, in that it presides over the sublunar realm, that realm in which there is birth and death.

> It is clear that the substrata in which the agent intellect acts are either bodies or powers in bodies which come to an end and pass away. And it was shown in *De Generatione et Corruptione* that the celestial bodies are the first acting matters and thus they give the agent intellect matters and substrata in which it acts.[47]

The agent intellect thus depends on those higher intellects that move the heavenly spheres, and finally on the prime mover who moves the highest heaven and who resembles God, although the distance from the Biblical God should be apparent:

> But that principle which is the principle through which the first heaven becomes a substance is necessarily one in all respects, and it is not possible that there is an existing thing more perfect than it, or that it have a principle. Thus it is the principle of all principles and the first principle of all existing things. And this is the principle which Aristotle mentioned in letter Lam [book Lambda] of the Metaphysics. Each one of these others is also an intellect, but this one is the first intellect and the first existing, the first one, and the first true. The others only become an intellect from it according to order.[48]

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[46] Ibid., p. 220.
[47] Ibid., p. 221.
[48] Ibid.

3

Of far greater importance for medieval Western philosophy are two other Arab philosophers: Avicenna and Averroes. Avicenna (Ibn Sina) was born near Bukhara (now Uzbekistan) in 980. In Bukhara he received his education and in its sultan he found a patron. But after the sultan's death in 997 and the end of his dynasty he was forced to leave and moved to various Persian courts. He died in 1073. Important to us is especially Avicenna's psychology.

In his *De Anima* (I, 1), Avicenna invites us to imagine a "flying man," a human being, possessing all his powers, but possessing no sensory experiences of any sort.[49] Would we in such a condition be able to affirm our own existence. Avicenna is convinced that we would. We would know that we are. With Descartes, we would be able to say*: cogito, ergo sum*. But this means that we have an immediate understanding of our being and that means also of being: indeed it is not clear whether the distinction between the two does not have to blur.

Avicenna concludes that the soul must be different from the body. In our present condition to be sure the soul is directed outwards, has lost itself to the things of the world, but taken in itself the soul is a substance and all human beings are but one soul. When we transcend all sense experience in reflection, withdraw into the inner core of our consciousness, we also transcend ourselves as individuals and rejoin that soul in which all humanity is one. The thought experiment recalls Augustine and anticipates Descartes, but despite its attractiveness to mysticism, the danger it poses to Christianity is evident.

It is only to be expected that Avicenna would insist on the soul's immortality.

> If then, the intelligible form is indivisible, and it does not inhere in an indivisible part of a magnitude, and, at the same time, there must be something in us which receives it, it is clear that the substratum of the intelligibles is a substance which is not a body, nor a bodily faculty such as

[49] Ibid., p. 239, cf. p. 263.

> might be subject to the accidents of the body, e.g, division with all the absurdities it involves.[50]

And

> Again, we have established that the supposed intelligibles which it is the function of the rational faculty actually to know one by one are potentially infinite. It is also certain that the substratum of something which can encompass infinite things cannot be a body nor a faculty in a body. This has been demonstrated in Aritotle's *Physics*. It is quite impossible, then, that the entity which receives intelligibles should be inherent in a body or that its action should be in a body or through a body.[51]

This is to say, our rational faculty extends to infinity. And this Avicenna takes to prove that, qua rational beings, we transcend our animal being, and so radically that death cannot finally touch this core of the soul. But this is not an individuated human soul:

> We say that human souls are of the same species and concept. If they existed before the body, they would be either multiple entities or one single entity. But it is impossible for them to be either one or the other, as will be shown later, therefore it is impossible for them to exist before the body.[52]

Although human souls do no preexist their bodies, Avicenna does leave open a door to a form of personal immortality:

> But after their separation from their bodies the souls remain individual owing to the different matters in which they have been, and owing to the times of their birth and their different dispositions due to their bodies which necessarily differ because of their peculiar condition.[53]

Averroes will consider this a bad argument. The philosopher here concedes too much to the theologian. The claim is indeed difficult to reconcile with the following:

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[50] Ibid., p. 257.
[51] Ibid., p. 258.
[52] Ibid.
[53] Ibid., p. 259.

> This being so, all the forms of attachment between the body and the soul have proved to be false and it only remains that the soul, in its being, has no relationship with the body, but is related with other principles which are not subject to change or corruption.[54]

This invites us to look both back to Plato's *Phaedo* and forward to Descartes' insistence on the unbridgable difference between *res cogitans* and *res extensa*.

The soul Avicenna hopes to have shown, being divorced from matter, is "absolutely incorruptible."[55] But it is difficult to reconcile this understanding of the soul with Christianity, which insists on personal immortality.

4

The other great Arab philosopher, and the Arab philosopher of the greatest importance to our topic, is Averroes (Ibn Rochd), who was born in Cordoba in 1126 and came to be known as the Commentator. According to him there is nothing that philosophy does not know better than faith and theology is the worst kind of speculation, since it is neither faith nor philosophy, but a corruption of both.[56] Faith, he insists, calls us to philosophy. And Averroes insists that Scripture and philosophy cannot be in contradiction:

> Demonstrative and scriptural truth cannot conflict.
>
> Now since it is true and summons to the study which leads to knowledge of the Truth, we the Muslim community know definitely that demonstrative study does not lead to [conclusions] conflicting with what Scripture has given us; for truth does not oppose truth but accords with it and bears witness to it.
>
> If the apparent meaning of Scripture conflicts with demonstrative conclusions it must be interpreted allegorically, i.e. metaphorically.[57]

It is this sort of consideration that, as we shall see, Galileo was to advance much later.

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[54] Ibid., p, 260.
[55] Ibid., p. 262.
[56] Etienne Gilson, *History of Christian Philosophy in the Middle Ages* (New York: Random House, 1955), p. 219.
[57] Hyman and Walsh, p. 292.

Averroes goes on to give us the outline of a theory of allegory and metaphor.

> Generally everything in these [texts] which admits of allegorical interpretation can only be understood by demonstration. The duty of the elite here is to apply such interpretation; while the duty of the masses is to take them in their apparent meaning, according to their capacities.[58]

What is subject to allegorical interpretation is not literally true, in keeping with what Aristotle taught. Metaphorical speech is improper speech. To really understand what is being signified we have to replace such improper with more proper speech. But not everyone is suited to being exposed to such speech.

Avicenna, for one, Averroes thought, had allowed himself to be corrupted by theology. Aristotle is his hero. His intellect is said by Averroes to have represented the limit of the human so that philosophy and the philosophy of Aristotle came to be thought of as pretty much the same thing.

> The starting point of the investigation is what we have gathered from Aristotle concerning these matters. For concerning things existing [in nature] no opinion has reached us from the ancients which is truer than his, or less subject to doubt, or presented in better order. Therefore we take his opinion to be that human opinion which man may attain by nature, that is, it is the most advanced opinion which man, insofar as he is man, may by his own knowledge and intellect attain. Thus, as Alexander puts it, "Aristotle is the one on whom we are to rely in the sciences."[59]

And that is especially true of his *Physics*, which is said to circumscribe all that natural philosophy can hope to know.

More than any other philosopher, it was Averroes who mediated Aristotle to Christian Europe, despite the fact that key doctrines were incompatible with orthodox Christianity, such as the Aristotelian doctrine of the eternity of the world and of collective immortality. Each deserves our further consideration.

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[58] Ibid. p. 300.
[59] Ibid. pp.317-318.

> When Aristotle also investigated concerning the nature of the celestial bodies in the first book of *De Caelo*, he demonstrated that they are simple, since their motion is simple, and that their nature is a nature which is neither heavy nor light, that is they are not ordinarily described by the terms of heaviness or lightness.[60]

Heavy and light apply only to the sublunar realm.

But I am more interested here in Averroes' commentary on Aristotle's *De Anima*, i.e. in his philosophical psychology. He begins by noting that our ability to understand presupposes what he calls the passive intellect.

> It is necessary, therefore, that, if [the intellect] understands all those things which exist outside the soul, it be described — prior to its understanding — as belonging to the genus of passive, not active, powers and [it is necessary] that it be not mixed with bodies, that is, that it be neither a body or a power within a body, be it a natural or animate power, as Anaxagoras has said.[61]

The passive or material intellect is a bit like a totally empty blackboard, except of course that we should not think it as being in any way corporeal: a purely spiritual blackboard — we may want to add.

Averroes himself likens it to and distinguishes it from prime matter.

> Since this is the definition of the material intellect, it is clear that it differs in respect to itself from prime matter in that it is in potentiality all the concepts (*intentiones*) of the universal material forms, while prime matter is in potentiality all these sensible forms, not [as] knowing and comprehending.[62]

Once again, following Aristotle, Averroes pairs this passive or material intellect with an active intellect:

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[60] Ibid. p. 322.
[61] Ibid., p. 304
[62] Ibid., p. 306.

> For insofar as the intelligibles move the intellect it is passive, but insofar as they are moved by it, it is active.[63]

We should note that both the passive and the active or agent intellect are said by Averroes to be neither generable nor corruptible. In this sense the intellect may be said to transcend the sublunar world and to reach up to what is everlasting. The material intellect, called material only in a metaphorical sense, too, like any intellectual principle must be immaterial and universal. It remains one for all humanity.

I have said a bit about the passive intellect. What about the active intellect? To exhibit its necessity Averroes relies once again on the analogy with vision:

> This relationship is found more perfectly between the subject of vision that moves [the faculty of sight] and the subject of the intellect that moves [the intellect]; for just as the subject of vision, which is color, moves [the faculty of sight] only when through the presence of light it was made actual color after it was in potency, so to the imagined intentions move the material intellect only when the intelligibles are made actual after they were in potency. Because of this it was neceesary for Aristole to posit an Active Intellect, as will be seen later, and it is what draws these intentions from potency into act.[64]

Averroes, too, identifies the Active Intellect with the intelligence that governs the sublunar sphere. And he, too, as we have seen, relies on the light metaphor:

> Indeed you ought to know that the relation of the Active Intellect to the receiving intellect is the relation of light to the transparent, while the relation of the material forms to [the material intellect] is as the relation of colors is to the transparent; for just as light is the perfection of the transparent, so the Active Intellect is the perfection of the material intellect.[65]

To these two, Averroes adds a third, the theoretical intellect: How are we to understand this theoretical and caused intellect, which is said to be generable and

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[63] Ibid., pp. 315-316
[64] Ibid., p. 112.
[65] Ibid., pp. 315-316.

corruptible in one sense, eternal in another?[66] It refers to the knowledge that is produced by human knowers.

The passive intellect is said to be one in all human beings. It is a necessary condition of the very possibility of receiving anything in thought. In this sense it is a condition of the very possibility of experience. But this passive intellect becomes actual in the according to Aristotle endless succession of mortal knowers, each one of whom must die, although this death does not mean the death of knowledge. There is thus a sense in which the speculative intellect, too, can said to be one and eternal. For what intellect produces does not perish when the thinker who produced it dies. In that sense we can say of every truth that humanity has discovered that it is timeless. But knowledge is of course gained and also lost. It does thus make sense to call the speculative intellect generable and corruptible in one sense, eternal in another.

To recapitulate: Averroes agrees with Avicenna that both the Passive and the Active Intellect are the same for all human beings. But while Avicenna attributed to each individual at least a possible intellect capable of surviving death, Averroes grants the individual only a receptive intellect that is linked to the imagination, which is simply a disposition to receive the forms that come from the Active Intellect. Linked to the imagination as it is, it is linked to the body and will perish with it. The threat to Christianity which has to insist on a personal after-life requires no comment. Next time I shall turn to the way it responded to this threat.

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[66] Ibid., p. 314.

5. The Instability of the Medieval Synthesis

1

I mentioned the importance of the Spanish city of Toledo in making available the writings of Aristotle and his Arab commentators to Christian Europe. I also pointed out that there was tension between this "new" philosophy and what it taught and Christian wisdom, between philosophy's claim to be the custodian of truth and that of the theologians who claimed that role for themselves. Recall Averroes' claim that there is nothing that philosophy does not know better than faith, that theology is the worst kind of speculation, since it is neither faith nor philosophy, but a corruption of both, and his insistence that Scripture and philosophy cannot be in contradiction; where they appear to be, Scripture needs to be interpreted allegorically.

In *De doctrina Christiana* Augustine had presented his understanding of "Christian Wisdom," which would place all profane knowledge in the service of sacred science, "that is, theology, or the scientific study of divine revelation accepted on faith. This is why the schools of liberal arts[67] were viewed as preparatory schools, providing a general formation that was indispensable for those entering the advanced fields of study, theology, law, or medicine."[68] Of philosophy, only logic appeared in the liberal arts. The supremacy of theology went unchallenged.

The acquaintance with the writings of Aristotle was to change all this. In 1255 all the known writings of Aristotle (including some mistakenly thought to be by him, such as *De causis*, *De plantis*, *De differentia spiritus et animae* were given a place in the program of studied offered by the Arts Faculty of the University of Paris.[69] And yet, as we have seen, Aristotle taught a number of doctrines incompatible with Christianity, such as the eternity of the world, monopsychism, and the denial of the Christian afterlife, so important to Christian ethics.

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[67] The seven liberal arts included grammar, logic, and rhetoric (the trivium} and arithmetic, geometry, music, and astronomy (the quadrivium).
[68] Fernand Van Steenberghen, *Thomas Aquinas and Radical Aristotelianism* (Washington: The Catholic University of America Press, 1980), p, 75.
[69] Ibid., p. 76

It was in the year 1200 that all of the cathedral schools in Paris, then a city of perhaps 150,000 people (this made it for the Middle Ages a very large city, perhaps the largest in Europe), got together and organized themselves as a single body, recognized by the French King Philip Augustus, and sanctioned by the pope 1215. That was the birth of the university of Paris. From the very beginning the impact of Aristotle would appear to have been significant. Indeed even before the founding of the university, in 1210, the teaching of Aristotle on natural philosophy and of their commentaries was interdicted by the archbishop of Sens under penalty of excommunication.[70] In the statutes of the university of Paris, the study of his logic was authorized, but his metaphysics, along with all his books dealing with natural philosophy were forbidden, along with the writings of David of Dinant, Amaury of Bene and a certain Mauritius of Spain, of whom we know next to nothing.[71] Amaury of Bene was a professor of logic and theology at Paris, who died in 1206 or 1207. His teachings were officially condemned in 1210 for their pantheism. And you can see why the authorities were concerned when you listen to this argument by an Amaurian named Bernard: "all is one, since all which is, is God; consequently, insofar as I am, I cannot be burned, nor executed, since, insofar as I am, I am God."[72] David of Dinant appears to have wondered how we can understand primary matter, which is pure potentiality, and distinguish it from God. Neither God, nor matter, has form. They escape our categories. But what do we get when we attempt to think what transcends all categorization: pure potentiality.

Since virtually nothing of what they wrote has survived, let me go on with the story of the study of Aristotle. Forbidden in Paris, it was allowed elsewhere, e.g. in Toulouse, in England, and in Cologne. And in Paris, too, the progress of his writings could not be stopped. Another attempt was made in 1231 by Pope Gregory X to forbid the teachings of Aristotle's *Physics,* at least until censors had purged the text of its errors. It would appear to have been rather ineffective, for in 1255 study of all the known works

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[70] Étienne Gilson, *History of Christian Philosophy in the Middle Ages* (New York: Random House,1955), p. 244.
[71] Ibid.
[72] Ibid., p. 241.

of Aristotle was made obligatory in the arts faculty of the University of Paris.[73] To be a philosopher had come to mean to immerse oneself in the works of Aristotle and those of his Arab commentators.

2

We should keep in mind what was going on in Europe at the time. Everywhere, not just in philosophy, we meet with a new worldliness that still touches us today in works like the *Roman de la Rose*, the *Carmina Burana*, or the sculptures of Nicola Pisano or the Master of Naumburg. All too worldly pleasures and intellectual pursuits seemed to matter more to the masses of students gathered in Paris than the kind of life exemplified by the stigmatized St. Francis. That the university by then had gained a considerable degree of autonomy from the Church represented by the bishop must have seemed to many a conservative churchman, for example to a St. Bonaventure, who from 1252-1257 was a colleague of St. Thomas in the theology faculty — a sad sign of decline and decay. And they could hardly have been reassured by the fact that it was in the Pagan and very worldly Aristotle, especially as interpreted by the Arab Averroes, that this Gothic naturalism had found its philosopher. At the university of Paris Aristotle was then brilliantly represented by Thomas Aquinas (1225-1274) and Siger of Brabant (ca. 1240-1284),[74] the former more interested in philosophical and theological topics, the latter more in the philosophy of nature. Conservatives, to be sure, many of them Franciscans, led by the great Bonaventure, continued to invoke the authority of Augustine. Others, including Thomas Aquinas, sought to appropriate Aristotle for a distinctly Christian world-view, striving for a genuine synthesis. Many students, however, would seem to have found Siger's insistence on the autonomy and independence of philosophy, i.e. on the autonomy of research and reflection, so opposed to the Augustinian understanding of Christian Wisdom, more attractive. Small wonder then that he, together with Boethius of

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[73] See Friedrich Heer, *Europäische Geistesgeschichte* (Stuttgart: Kohlhammer, 1953), p. 162.

[74] See Siger of Brabant, "Question of the Eternity of the World," Hypman and Walsh, , pp. 437-466.

Dacia, another leading representative of secular Aristotelianism, should have been especially targeted by the Condemnation.

Already in 1270 bishop Tempier had condemned 13 Averroist theses: let me briefly note them:

> These are the errors which Stephen, Bishop of Paris, on the Wednesday following the feast of blessed Nicholas in the year of our Lord 1270 condemned and excommunicated along with all who shall have taught or asserted them knowingly.
>
> 1. That the intellect of all men is numerically one and the same.
> 2. That this is false or inept: Man understands.
> 3. That the will of man wills or chooses out of necessity.
> 4. That all that goes on here below falls under the necessitating influence of the celestial bodies.
> 5. That the world is eternal.
> 6. That there was never a first man.
> 7. That the soul, which is the form of man specifically as man, disintegrates with the corruption of the body.
> 8. That the soul in its state of separation after death does not suffer from corporeal fire.
> 9. That free will is not an active but a passive power and that it is moved in a necessary way by the appetite.
> 10. That God does not know individual things.
> 11. That God does not know things other than himself.
> 12. That human actions are not governed by God's providence.
> 13. That God cannot endow a corruptible or mortal thing with the gift of immortality or incorruption."[75]

In the name of reason Aristotelian philosophy denied the freedom of the will, a presupposition of the Christian understanding of sin, proclaimed the eternity of the world,

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[75] Edward Grant, *The Foundations of Modern Science in the Middle Ages: Their Religious, Institutional and Intellectual Contexts* (Cambridge: Cambridge U. Press 1996), pp. 71-72

thus challenging the Biblical creation account, and insisted on the unity of the human spirit in all human beings, denying thus an individual, immortal soul.

The main culprit here was "Siger the Great," as he was called.[76] The tenor of his philosophizing makes it easy to understand the Church's objections to what he taught. Consider his answer to the question: "whether the human species had a beginning in time." Appealing to Aristotle, Siger denies such a beginning:

> Now, from the explanation it is clear in what way the human species is considered by philosophers eternal and caused. For, it is not to be thought of as eternal and caused as if it existed abstracted from individuals. Nor is it eternally caused in the sense that it exists in an eternally caused individual, as the species of heaven or an intelligence; but rather because in the individuals of the human species one is generated before the other eternally, and the species has to be and be caused through an individual's existing and being caused. Hence it is that the human species always exists and that it did not begin to be after previous non-existence. For to say that it began to be after it had not existed before is to say that there began to be a certain individual before whom no other individual of that species had existed.[77]

What are we then to think of Adam?

And just as "man does not begin to be when he had in no way existed before," "neither does time." The impossibility of the Christian creation account is said to be evident.[78]

> And the given reason is similar to the reasoning by which Aristotle speculates in *Physics* 4 whether past time is finite. All past time whether near or remote is a certain *then*, and the certain *then* has a measured distance to the present now; therefore all past time is finite. And each of the aforementioned propositions is clear from the meaning of that *then* which Aristotle speaks of in *Physics* 4. The solution of this reasoning,

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[76] Heer, p. 162.
[77] Hyman and Walsh, p. 441
[78] Ibid., p. 500.

> according to Aristotle, is that although every second is finite, nevertheless since in time there is a *then* before the *then* to infinity, therefore not all past time is finite. For what is composed of things finite in quantity yet infinite in number has to be infinite. So also, although there is no individual man but that he has begun to exist when he had not existed before, yet there is an individual before the individual so that man does not begin to be when he had in no wise existed before, and neither does time. And the case is similar — just as past time has to be thought through a certain then, so also species have to be through the existence of any one of its individuals.[79]

The incompatibility of such teaching with the Christian account of creation, more especially of the creation of man, requires no comment. Small wonder that the Church was exercised.

From the fact that the prime mover is always moving and acting, it is said to follow that

> No species of being proceeds to actuality, but that it has proceeded before, so that the same species which were, return in a cycle; and so also opinions and laws and religions, and all other things so that the lower circle around from the circling of the higher, although because of the antiquity there is no memory of the cycle of these. We say these things as the opinion of the Philosopher, although not asserting them as true.[80]

That such a cyclical view of nature is incompatible with the Christian understanding of history, which insists on uniquely significant times and events, is evident. Think of the creation of Adam, of the birth and death of Christ. What does Siger have to say about these? It is therefore not surprising to discover that Siger immediately hedges: "We say these things as the opinion of the Philosopher, although not asserting them as true." This is to say that the truth claimed by philosophy may not be identified with *the* truth. What do you make of this? Does this qualification make sense?

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[79] Ibid., p. 441.
[80] Ibid., p.,445.

Siger presents himself here as a representative of what has been called the theory of double truth, which would cut the bond that had tied philosophy to theology: but if nominally the truth of philosophy here remained subordinated to the revealed truth of religion, there is also the suggestion that the latter must be considered unreasonable, where, to be sure, there is the obvious theological rejoinder that the philosopher must not forget that human reason and reality are finally incommensurable. But those who want to use their own God-given minds are invited to forget theology. It is doubtful that anyone really held the theory of double truth. Did Siger propose it only to pull the wool over the eyes of a suspicious establishment? If so, he failed. Here at any rate is the way the Condemnation responded to it:

> So as not to appear to be asserting what they [teachers of philosophy such as Siger] thus insinuate, they conceal their answers in such a way that, while wishing to avoid Scylla, they fall into Charybdis. For they say that these things are true according to philosophy, but not according to the Catholic faith, as if there were two contrary truths and as if the truth of Sacred Scripture were contradicted by the truth in the sayings of the accursed pagans, of whom it is written: *I will destroy the Wisdom of the Wise* [I Cor. 1:19; cf. Isa. 29:14], inasmuch as true wisdom destroys false wisdom. Would that such students listen to the advice of the wise man when he says: *If you have understanding, answer your neighbor; but if not, let your hand be upon your mouth, lest you be surprised in an unskillful word and be confounded* [Eccles. 5:14].[81] (HW 541)

That speculations such as Siger's had to provoke the guardians of the faith is only to be expected. The Condemnation of 1277 — both Thomas and Bonaventure had died in 1274 — is a key document of their response, representing a victory of mostly Franciscan neo-Augustinians over often Dominican Aristotelians. On January 16 of that year Pope John XXI, worried about the effect speculation that would free philosophy from the tutelage of theology might have, had asked Étienne Tempier, the bishop of

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[81] Ibid.. p. 541.

Paris, to investigate the matter. The bishop responded with the condemnation on March 7 and only eleven days later the Archbishop of Canterbury followed suit. It is of interest to note that this condemnation came just after the death of St. Thomas, who offered a Christian reading of Aristotle that attempted to show that the two were indeed compatible. On the doctrine of the eternity of the world, he argued that reason alone could neither establish nor refute the Aristotelian thesis of the eternity of the world: this opened the door to leaving faith the last word in this matter. And on the matter of monopsychism he argued, disregarding what Aristotle had said in his *Metaphysics*, that it is the individual who understands, and that the soul, though immaterial and transcending the material and changing is nevertheless created by God. Aristotle could not have accepted this: for him an immaterial substance is one that escapes the conditions of matter and is therefore inevitably eternal.[82]

3

This brief account may suggest that what we have here is another case of the Church's unwillingness to accept intellectual progress, represented here by the rediscovery of Aristotle, another sad chapter then in the suppression of free thought, a precursor perhaps of the later trials of Bruno and Galileo. And yet, strange as it may seem, precisely by challenging the authority of Aristotle in the name of theology, the conservatives helped prepare the way for an understanding of nature that was to issue in the new science. Paradoxically, it was these Christian conservatives who opened up the way for what was truly progressive. Aristotelian physics, which depends on a geocentric cosmology, and the Copernican revolution cannot be reconciled. But Aristotle's physics can also not be reconciled with the Christian conception of God and creation and it is this that the Condemnation insists on. A very Christian reaction to Aristotelian ideas thus helped open up the space that made our modern science and thus our modern technology and thus our modern world possible. I shall turn to that next time.

But let me make one final remark to show that the issue of double truth remains a significant issue. On May 13, 2009 I had a conversation over lunch with a colleague,

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[82] Van Steenberghen, p.. 61.

Professor Drew McDermott of Yale's computer science department. What we then talked about has continued to occupy me. Professor McDermott told of how he had recently returned to the thought of Martin Heidegger, which he had encountered in college quite some time ago, but to which for many years had given little thought. But now he had come to see that what Heidegger had to say did do justice to our first person awareness of being in the world. In that sense much of what he had to say could be called true. From the third person perspective of the scientist, however, it had to be judged false.

McDermott followed this conversation up by sending me the draft of a paper on which he was still working with the thought-provoking title: "How Moral Absolutism Can Be True and False at the Same Time; Or: Non-Phenomenological Existentialism." Here the paper's abstract:

> We examine ethics from the point of view of cognitive science. Science commits one to a view in which ethics is just an arbitrary aspect of culture, and the study of cultures is value-free, so that relativism seems axiomatically true. But intelligent agents cannot take the view of pure science, because certain built-in beliefs contradict it. These inescapable framework illusions (IFI's) include a belief in free will, the persistence of the self through time, and, among humans, the universalizability of moral statements.

McDermott takes us moderns to be confronted with something like an antinomy: as intelligent agents we are compelled to believe certain things, most importantly that our will is free, that we are selves that persist through time, that there are moral truths that can be universalized, beliefs which as individuals committed to science we yet know to be false. A somewhat weaker version of this claim, closer to what Kierkegaard was going to maintain, is familiar from the work of philosophers such as Kant and Fichte,[83] who insist that as free, responsible actors we have to take as true what theoretical reason is unable to establish, indeed cannot even make sense of. But they would have refused to assert that what practical reason forces us to accept as true is from an objective, third

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[83] See especially Johann Gottlieb Fichte, *The Vocation of Man*, ed. and intro. Roderick M., Chisholm, (New York, Liberal Arts Press, 1956).

person point of view false. Thus they would not have wanted to say that "moral absolutism can be true and false at the same time." They would have rejected any theory of double truth.

6. Divine Freedom

1

Today I would like to take a closer look at the Condemnation: As we might expect, many of its propositions, at least half of them, concern Aristotle's philosophy of nature. I have already suggested how difficult it is to reconcile Aristotle's teachings on the eternity of the world and Averroist monopsychism, both certainly suggested by a literalist reading of the *Metaphysics*, with Christianity. This obviously concerned the authors of the Condemnation.

2

First a brief look at the theses that have a bearing on the question of the eternity of the world.

> 83. The world, although it was made from nothing, was not newly made, and, although it passed from non-being to being, the nonbeing did not precede being in duration, but only in nature.

The condemned proposition distinguishes what we might call ontological priority from the temporal order of causation. The thesis is condemned because it denies the temporal beginning of the world.

> 84. That the world is eternal because that which has a nature by which it is able to exist for the whole future has a nature by which it was able to exist in the whole past.
>
> 85. That the world is eternal as regards all the species contained in it, and that time, motion, matter, agent, and receiver are eternal, because the world comes from the infinite power of God and it is impossible that there be something new in the effect without there being something new in the cause.
>
> 86. That eternity and time have no existence in reality but only in the mind.

"Eternity" here translates the Latin "aevum," which means not timelessness, but refers to the temporality that belongs to spiritual substances. Aristotle had taught that time is the measure of motion and as such dependent on mind: if there were no mind to measure

motion, there would be no time. The proposition must have suggested to the authors of the condemnation a denial of the reality of the world created by God.

> 87. That nothing is eternal from the standpoint of its end that is not eternal from the standpoint of its beginning.

Both Siger and Boethius of Dacia defend this, but insist that this is a truth only according philosophy, which need not be absolutely true.

> 89. That it is impossible to refute the arguments of the Philosopher concerning the eternity of the world, unless we can say that the will of the first being embraces incompatibles.

89 is of special interest in that it claims that to disagree with Aristotle on the eternity of the world, one would have to accept incompatible truths. This is the position of Siger, who then either has to accept the theory of double truth, or follow Averroes and insist that the truth of philosophy trumps theology, or admit that the truth of philosophy is only a precariously established human truth and cannot claim first place. On the question of the eternity of the world Thomas Aquinas had taken the weaker position that reason alone could not establish the truth or falsity of Aristotle's position.

> 138. That there was no first man, nor will there be a last; indeed, the generation of man from man always was and always will be.

Once again Siger is the most obvious source. The incompatibility of the proposition with *Genesis* is evident.

3

I next want to turn to some theses that bear on the issue of monopsychism:

> 117. That the intellect is numerically one for all, although it can be separated from this or that body, it is not separated from every body.

The target would seem to be once again Siger.

> 118. That the agent intellect is a certain separated substance superior to the possible intellect, and that it is separated from the body according to its substance, power and operation and is not the form of the human body.

Roland Hissette,[84] who has given us the most complete commentary on the Condemnation, points out that the *intellectus agens* is here identified with Avicenna's giver of forms, which Roger Bacon and others identified with the illuminating intellect of God spoken of by Augustine.

> 122. That from the sensitive and intellectual parts of man there does not result a unity in essence, unless it be a unity such as that of an intelligence and a sphere, that is, a unity in operation.

The reference to "sphere" here invites us to think the way the heavenly spheres were thought to be moved by intelligences, which Christians took to be angels. But to think that the intellectual and sensitive part of man are linked in a similar way threatens the unity of the self.

> 123. That the intellect is not the form of the body, except in the manner in which a helmsman is the form of a ship, and that it is not an essential perfection of man.

The condemned proposition invites comparison with the preceding and is considered objectionable for essentially the same reason.

> 126. That the intellect, which is man's ultimate perfection, is completely separated.

This disconnects man's ultimate perfection from our personal existence.

> 129. That the substance of the soul is eternal, and that the agent and the possible intellect are eternal.

Once again the target is Averroism, as mediated by Siger. What makes the condemned thesis objectionable is once again the way it separates "the substance of the soul" from individual human existence.

> 131. That the speculative intellect is simply eternal and incorruptible; with respect to this or that man, however, it is corrupted when the phantasms in him are corrupted.

As Hissette points out, according to Aristotle the separated agent intellect would not know without cerebral images in human brains. Since according to Aristotle and Averroes there

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[84] See Roland Hissette, *Enquete sur les 219 articles conmamnés å Paris l3 7 Mars 1277* (Louvain, 1977).

always were and always will be human beings, there will always be knowledge. In this sense the speculative intellect can be said to be eternal. But that does not mean that the individual will still know something after death.

> 133. That the soul is inseparable from the body, and that the soul is corrupted when the harmony of the body is corrupted.

The claim that the individual soul will die with the body is obviously heterodox.

> 135. That the separated soul is not alterable, according to philosophy, although according to faith it is altered.

Here we have an explicit condemnation, not just of the first clause, but more importantly of the theory of double truth.

> 136. That the intellect can pass from body to body, in such a way that it is successively the mover of different bodies.

The target is once more Averroes.

4

The incompatibility of Averroist monopsychism and Christian doctrine should have become clear. But more important to me is another issue: the threat the freedom of an omnipotent deity poses to rational, scientific inquiry. Or to put in the reverse way: the threat the claim to truth made by science poses to Divine omnipotence. This threatened to undermine the Augustinian understanding of "Christian Wisdom," to which all profane knowledge had to be subservient. Consider the opening propositions that recall Averroes:

> 1. That there is no more excellent state than to study philosophy.

Following Averroes, philosophy is placed above Christian wisdom. The target of the condemnation would appear to be a short text by Boethius of Dacia, *De Summo Bono*, readily available on the internet.[85] I mentioned him before as one of the main targets of the Condemnation. Hissette defends Boethius against this charge, since D*e Summo Bono*

[85] For the Latin text see
http://www.thelatinlibrary.com/boethiusdacia/desummobono.html

explicitly denies that he is speaking of the highest good in an absolute sense. Still Boethius does seem to say that this is the highest state attainable to human beings[86]

2. That the only wise men in the world are the philosophers.

The target would seem to be once again Boethius, this time another short text, *De Aeternitate Mundi*.[87]

4. That one should not hold anything unless it is self-evident or can be manifested from self-evident principles.

5. That man should not be content with authority to have certainty about any question.

The target would seem to be Siger, or more generally Averroism.

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[86] Ibid., *Non dico summum bonum absolute, sed summum sibi, bona enim possibila homini finem habent nec procedunt in infinitum*.

[87] For the Latin text see http://www.thelatinlibrary.com/boethiusdacia/deaeternitate.html
E.g., *Nec credas quod philosophus qui vitam suam posuit in studio sapientiae, contradixit veritati fidei catholicae in aliquo, sed magis studeas, quia modicum habes intellectum respectu philosophorum qui fuerunt et sunt sapientes mundi, ut possis intelligere sermones eorum*.
The claim that this text is indeed the target has been challenged recently by Malcolm De Mowbray, in "The De Aeternitate Mundi of Boethius of Dacia and the Paris Condemnation of 1277," *Recherches de Théologie et Philosophie Médiévales,* Volume: 73, Issue: 2 Date: pp. 201-253 Here the Abstract of his paper:
"Careful examination of the arguments used in the *De aeternitate mundi* attributed to Boethius of Dacia shows that this is not a work of radical Aristotelianism, but a teaching text aimed at showing students how to approach the question of the eternity of the world in their disputations. A comparison of the text with some of the articles condemned in 1277 demonstrates that the articles do not originate from the text and that the work was not targeted by Tempier. What is learned from the text about disputations on the eternity of the world is then used to show another way of reading these articles which is consistent with Tempier's assertion that they were put forward by students during disputations and to some extent enables one to reconstruct the debates as they happened. This also shows how the students distorted the arguments of their masters for their own ends, which in turn suggests how the so-called 'double truth' may have been inspired by the *De aeternitate mundi* or a text like it. Finally, this helps explain the apparent reaction against the arguments used in the *De aeternitate* on the part of a number of philosophy teachers during the 1270s."
The text, however, leaves me unconvinced by the argument.

> 6. That there is no rationally disputable question that the philosopher ought not to dispute and determine, because reasons are derived from things. It belongs to philosophy under one or other of its parts to consider all things.

Once more the target would seem to be Boethius. Hissette defends him by pointing out that Boethius did not consider every question determinable. He thus did not think that reason could provide an answer to the question of the eternity of the world. Hissette thus agrees with Van Steenberghen's critique of Mandonnet, who claims that Siger and Boethius held the condemned views. Thomas Aquinas certainly would have rejected 6, and the text supports Hissette's claim that Boethius would have agreed.

> 180. That the Christian law impedes learning.
>
> 181. That there are fables and falsehoods in the Christian law just as in others.
>
> 182. That one does not know anything more by the fact that he knows theology.
>
> 183. That the teachings of the theologians are based on fables.

Citing Mandonnet, Hissette suggests that 180 –183 are expression of a pagan rationalism or naturalism that may have been floating about among the students.

> 188. That it is not true that something comes from nothing or was made in a first creation.

Again the target would seem to be Siger, who objected that such talk made nothing into a kind of matter out of which something is then created.

> 189. That creation is not possible, even though the contrary must be held according to faith.

The condemnation of this proposition once again comes close to condemning the theory of double truth.

But let me return to the doctrine of divine omnipotence that the Condemnation defends. Must this not mean that natural science cannot claim to understand the way things have to be? The universe may not be thought of as ruled by laws we can learn. For an omnipotent God could change these laws whenever and however He chose. To give an example: Aristotle thought that the world included all matter that could possibly

exist, that the world therefore could not be any larger than it is, and that there could not be any other worlds. Someone convinced of God's omnipotence would want to dispute such claims that would subject God to natural necessity. The authors of the Condemnation want to make sure that the faithful not limit God's freedom by subjecting it to supposed laws of nature.

> 22. That God cannot be the cause of a newly-made thing and cannot produce anything new.

22 denies God's power to create anything new, a position incompatible both with the creation account and with miracles. According to the condemned proposition God is bound by the laws of nature. To challenge this is to shake the foundation of Aristotle's physics. x

> 23. That God cannot move anything irregularly, that is, in a manner other than that in which He does, because there is no diversity of will in Him.

23 insists on absolute regularity. This would rule out miracles. That a Christian thinker should want to reject such a proposition is evident. And this rejection inevitably leads to another thought: the world cannot be just as Aristotle describes it. God's freedom may not be imprisoned in Aristotle's philosophy.

> 24. That God is eternal in acting and moving, just as He is eternal in existing; otherwise He would be determined by some other thing that would be prior to Him.

Hissette insists that this is quite in agreement with Catholic theology. It does, however invite thoughts of an eternal world.

> 25. That God has infinite power, not because He makes something out of nothing, but because He maintains infinite motion.

25 once again denies the creation account. The Biblical God is reduced to the Aristotelian prime mover, who certainly did not create the world *ex nihilo*. Taken together, the condemnation of these propositions blurs the distinction between what is *logically possible* and what is *really possible*, a distinction on which Aristotle had insisted. But with this blurring the Aristotelian theory of motion loses its foundation.

> 26. That God has infinite power in duration, not in action, since there is not such infinity except in an infinite body, if there were such a thing.

The condemnation of these propositions insists on the incompatibility of Aristotle's *Physics* and Christian faith. There is an insistence on the infinity of God. What is really possible exceeds what Aristotelian science declares to be naturally possible.

27. That the first cause cannot make more than one world.

Thomas Aquinas would appear to be one of the targets here. In Neo-Platonism everything emanates from the One, a view Christian theology appropriated. The order of the world stems from this. Divine wisdom tends towards unity. The power of God should not be divorced from his wisdom. Such convictions would lead one to agree with the condemned proposition. The condemnation of 1277, on the other hand, invites us to understand the uniqueness of this world as a contingent fact. Given God's infinite power, how can there be a limit to the number of worlds He could have created, had He chosen to do so? Aren't there countless possible worlds? They condemnation prepares thus for a voluntaristic conception of God, which uncouples God's unfathomable will from what reason demands or can grasp.

28. That from one first agent there cannot proceed a multiplicity of effects.

28 insists that to understand the multiplicity of things we must recognize a contribution from what transcends the cause, i.e. matter. A *creatio ex nihilo* is denied.

30. That the first cause cannot produce something other than itself, because every difference between maker and made is through matter.

Once again the condemned proposition insists on the importance of matter or nature.

Of particular interest in this connection are the propositions dealing with God's will.

16. That the first cause is the most remote cause of all things, — This is erroneous if so understood as to mean that it is not the most proximate.

The condemned proposition suggests that the first cause acts by means of intermediaries. Presupposed is a hierarchy of causes, where power is delegated or transmitted. But, the proposition insists, God does not delegate power in this way. God is both the most remote and the most proximate cause. The target is once again Siger. Hissette defends the orthodoxy of the condemned proposition, insisting on the distinction between the *via fidei,* the way if faith, and *discursus secundum intentionem philosophorum*, the diccourse

according to the intention of the ohilosophers.. That moves in the direction of the theory of double truth.

Not only here does Hissette's defense leaves me unconvinced.

> 17. That what is impossible absolutely speaking cannot be brought about by God or by another agent. — This is erroneous if we mean what is impossible according to nature.

The Condemnation insists on the distinction between *impossibile simpliciter* and *impossibile secundam naturam*, between logical and natural impossibility. Even God cannot make a contradiction be true, nor can God commit suicide, which would violate his own being. But he can of course create miracles.

> 18. That what is self-determined, either always acts or never acts; and that many things are eternal.
>
> 20. That God of necessity makes whatever comes immediately from Him. — This is erroneous whether we speak of the necessity of coercion, which destroys liberty, or of the necessity of immutability, which implies the inability to do otherwise.

Once more the point is to safeguard the free will of God. The condemned Neo-Platonic view threatens such freedom. And in saving the free will of God, the authors of the Condemnation also create room for human freedom. Is it not evident that, in his omnipotence, God could have created quite a different world or even worlds? Quite a number of the condemned propositions presuppose a view of nature as a hierarchical order, where I would like to underscore both "hierarchical" and "order." An attempt is made to subordinate the freedom of God to the regularity suggested by Aristotle's *Physics* or for that matter by Neo-Platonist thought. To save the omnipotence and freedom of God, the Condemnation challenges both the insistence on hierarchy and order.

5

Of special interest are those propositions that suggest that God cannot produce an effect without the mediation of other causes.

> 67. That the first principle cannot produce generable things immediately because they are new effects and a new effect requires an immediate cause that is capable of being otherwise.
> 68. That the first principle cannot be the cause of diverse products here below without the mediation of other causes, inasmuch as nothing that transforms, transforms in diverse ways without being itself transformed.
> 69. That God cannot produce the effect of a secondary cause without the secondary cause itself.

Even God, on the condemned view, cannot bring about effects here on earth without the medium of the causes that naturally bring about such effects. Consider the example of a stone falling or a thrown stone. God cannot suddenly arrest such motion.

On the Aristotelian view there can be no *actio in distans*: either a thing seeks its own proper place or it is acted on, is pushed or pulled, carried or twirled. This is indeed a view of motion that experience readily suggests. In this sense it has an initial plausibility. Like so much of Aristotle's *Physics* it is read off the way we experience things first of all and most of the time. But given this account, it is difficult to explain what Aristotle considered violent motions. Consider once more the motion of a thrown stone. Aristotle had suggested that the air, set in motion by the thrower, pulls the stone along with it. In his *Questions on the Eight Books of the Physics of Aristotle* John Buridan (ca. 1300 – ca, 1358) was to question this account:

> The other opinion, which Aristotle seems to approve, is that along with the projectile the projector moves the adjacent air, and that swiftly moved air has the power of moving the projectile. It should not be understood that the same air is moved from the place of the projector up to the place at which the projectile stops, but that the air joined to the projector is moved by the projector, and that moved air moves another next to it and that other, up to a certain distance. Thus the first air moves the projectile to the second air and the second to the third and so on. Hence Aristotle says that there is not one mover, but many, one after

> another. Hence he also says that the motion is not continuous, but consequently of contiguous beings.[88] (HW 702-703)

Buridan finds this account unconvincing.

> And so it seems to me that what should be said it that the mover in moving what is moved impresses upon it a certain impetus or force that moves the moved thing in the direction the mover moved it, whether up or down, laterally or in a circle. And the more swiftly the mover moves the moved thing, the stronger the impetus he impresses upon it. The stone is moved by that impetus after the projector ceases to move, but the impetus is continuously diminished by the resisting air and by the gravity of the stone inclining it against the direction the impetus inherently moves it. Hence the motion of that stone is made continuously slower, and finally the impetus is so diminished or corrupted that the gravity of the stone prevails over it and moves the stone down to its natural place. This manner seems to me to be maintained in that the others do not seem true; also all appearances are consonant with this view. (HW 703)

If to us, as already to Buridan, the Aristotelian theory seems quite implausible, we should keep in mind that in the Middle Ages it was subjected to serious questioning only after the difficulty of reconciling Aristotle's philosophy of nature with the requirements of faith had become evident. In this connection it is interesting to note that the impetus theory, which appeals to the momentum of the moving object, makes its first appearance in the context of a discussion of the effectiveness of the holy sacraments. It is found in a *Commentary on the Sentences of Peter Lombard* by Franciscus de Marchia, in 1320.[89] It may seem odd that a theory that would seem to belong to physics should be developed in the context of a theological treatise. The sacraments were understood as instruments of

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[88] Hyman and Walsh, p. 703.

[89] The following discussion is indebted to Hans Blumenberg, *Die Genesis der kopernikanischen Welt* (Frankfurt: Suhrkamp, 1975), pp. 174-182. Blumenberg relies on Anneliese Maier, *Zwei Grundprobleme der scholastischen Naturphilosophie,* 2nd ed. (Rome: Edizioni di Storia e Letteratura, 1951, p. 166 ff. and Marshall Clagett, *The Science of Mechanics in the Middle Ages* (Madison: The University of Wisconsin Press, 1959), pp. 526 -531.

divine grace. In the fourteenth century much thought was given to the question whether the effectiveness of the sacrament derived immediately from God or whether it is somehow a power inherent in the sacrament itself (*virtus inherens*). Franciscus de Marchia defends the latter view. And to make his case more plausible he offers the analogy of a thrown object, say a stone. The question raised is whether such a stone receives its impetus directly from the thrower or whether it is somehow inherent in the object thrown. There is the obvious fact of the distance separating the projectile and the thrower, which would seem to argue against saying that the impetus derives immediately from the thrower. De Marchia suggests that the thrower deposits in a sense the power of motion in the stone (*virtus derelicta ab ipso primo motore*).

The difference between this and the Aristotelian conception is obvious. Now there is no longer a need to assume a vortex of air moving along with the stone. The thrower imparts an impetus and that impetus accounts for the motion of the stone. In defense of his interpretation Franciscus appeals to the principle of economy. What happens, happens in the simplest possible way. We should keep in mind the context of the discussion: we can assume that what Franciscus de Marchia was really interested in, was showing that God deposited in the sacraments a certain power. Administering the sacraments, priests became the custodians and administrators of that power. Transcendence was deposited in the immanent.

But let me return to the theory of motion that has here been advanced. If that theory is at all plausible, there is no longer any reason to assume with Aristotle that the heavenly spheres are continuously pushed around by prime movers, out of which the Middle Ages had made angels. The angels lose at least one of their functions. They are still necessary to give the first push.

In keeping with his impetus theory, Franciscus de Marchia, however, thought that impetus weakened over time. The angels were thus necessary after all to renew that motion.[90] But what is important here is the way the sublunar paradigm of the thrown stone here provides the starting point for a new interpretation of the motion of the heavens. That extension presupposes that the qualitative difference between the sublunar

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[90] Blumenberg, *Genesis*, p. 181.

and superlunar realms on which Aristotle had insisted no longer seemed binding. What is challenged is what we can call the cosmological difference fundamental to Aristotelian science.

We may well wonder why Franciscus de Marchia did not retain the Aristotelian view that there is no tiring in the superlunar realm. Why did he not give his spheres an unending ceaseless motion. The answer is given by the fact that he clung to the Aristotelian, or rather medieval view, that the spheres were moved by angels. Being finite creatures, he thought, they could not produce an infinite effect. Change had thus been admitted into the superlunar realm. And to reassure his readers that this should not bother them, he appeals to the traditional view that the blessed are supposed to converse in Heaven, but this they could do surely only by means of words, which would have to come into being and again disappear.[91]

What I want to underscore once more and what is important in this context is the breakdown of what I have called the cosmological difference, the difference between the superlunar and the sublunar realm. Behind that breakdown stands the recognition of the incompatibility of the hierarchical cosmology of Aristotle and the omnipotence of a God who is both the most remote and the most proximate cause of all that is.

De Marchia's willingness to introduce change into the superlunar world does nevertheless seem startling. One is thus not surprised to discover the Parisian nominalist Buridan returning to the cosmological difference, but without giving up his impetus theory. And Buridan applies the same analysis to a falling object:

> And from this also appears the cause whereby the natural downward motion of a heavy thing is continuously speeded up, for at first only gravity moved it and so it moved more slowly; but in moving, impetus is impressed on that heavy thing, which impetus then moves it along with the gravity. Hence the motion becomes swift, and the swifter it goes, the more intense the impetus becomes. (HW 770)

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[91] Blumenberg, *Genesis*, p. 181.

But, as Buridan hints by speaking of "the natural downward movement of a heavy thing," the falling object is for Aristotle an example of a natural, not a violent motion. This blurring of the distinction between natural and violent motion is of crucial importance.

Buridan does not hesitate to follow Franciscus de Marchia and to apply the impetus theory to the heavens, although he upholds a version of the cosmological difference by insisting that in the heavenly sphere impetus once imparted does not tire. With this the angels lose this function:

> … Also, since it does not appear from the Bible that there are intelligences to whom it pertains to move the heavenly bodies, one could say that there seems no need to posit such intelligences. For it might be said that when God created the world He moved each of the celestial orbs however He pleased; and in moving them He impressed an impetus which moved them without His moving them any more, except in the way of the general influence, just as He concurs in co-acting in everything which is done. For He rested on the seventh day from every work He had achieved by committing to others their reciprocal actions and passions. And those impetuses impressed upon the heavenly bodies were not afterwards lessened or corrupted because there was no inclination of the heavenly bodies to other motions nor was there resistance which would corrupt of restrain that impetus. But I do not assert this; I request the theologians to teach me how these things can be done. (HW 703-704)

Let me return once more to the distinction between natural and violent motions. Natural motions, according to Aristotle, tend towards their natural place. Why do things fall to the earth when dropped? Because they seek their proper place! Teleological interpretations are appropriate to natural motions. Violent motions on the other hand have their end without themselves. Why did you throw that stone? That is irrelevant to the physicist's account of its motion. Similarly, although God gave a particular impetus to each particular heavenly sphere, we do not know why. All we can do is try to understand the nature of the impetus imparted. The impetus theory suggested thus the possibility of treating the movements of nature without reference to the desired end. And given the difference between the human and the divine intellect, how could human beings

pretend to know for what end God created the heavens and their motions? The impetus theory suggested the possibility of a science of nature no longer in need of teleological explanations. The renunciation of such explanations, a renunciation central to Descartes' science of nature and to the science that issued from it, has its origin in a view of nature that makes God its author and then makes that God infinite and declares that we cannot hope to know his ends. We have to be content with explanations that give us the efficient causes of things, although the ghost of the old teleological thinking continues to haunt the phenomenon of gravity. Buridan's understanding of the heavenly bodies as *quasi per se mobilia*, as moving as if by their own power, heralds the progressive banishment of God from nature.

What interests me here is the challenge posed by such speculations to the Aristotelian, medieval view of nature as a hierarchical order and of the cosmological difference, which goes along with that conception. With that idea goes the idea of natural place; and with that goes the distinction between natural and violent motion as Aristotle had drawn it, that is to say, goes Aristotle's physics and the kind of teleological thinking appropriate to it.

6

For one last example of the challenge divine omnipotence posed to Aristotle's philosophy of nature, let me return once more to the Condemnation of 1277:

> 66. That God could not move the heaven in a straight line, the reason being that He would then leave a vacuum.

Again we have an attempt to make room for God's infinite freedom and power in the face of Aristotle's *Physics*. The reason given in support of the condemned proposition is one that Aristotle himself would have dismissed, for he would have insisted that outside the world there can be no space, and therefore also no vacuum.[92] Even the reason given here in defense of Aristotle presupposes an understanding of space that is no longer his. But the Condemnation goes further by insisting that God could have moved the Heaven had he so chosen. But for that possibility to make sense, space may not be bound to or be

[92] Duhem, p 181.

imprisoned in the firmament, as it is in Aristotle's physics. And even if Aristotle should have been more or less right about the way things are, does this mean that God could not create such a space outside the world, should he so choose? Presupposed by such thought experiments is then a rejection of the Aristotelian attempt to think space in terms of place.

Consider how Buridan draws on the condemnation of this proposition:

> Aristotle holds that the world as a whole does not have a place, except by reason of parts of which one places another because it contains and is divided from it and touches it. For this is required in order that there should be place. And so if God should annihilate all bodies outside this stone, this stone would no longer be in a place. Yet given this case, it would still be possible that God should move the entire world at one time in a circle. I prove this through a certain condemned Parisian Article which says that God cannot move the entire world at the same time with rectilinear motion. This is in error. And there is no reason why He should move it more with rectangular than with circular motion. He moves all the heavenly spheres at the same time with the outermost sphere, so He could revolve all the others, that is the lower ones, at the same time and by Himself. He can revolve everything at the same time now, while they are discontinuous from one another; he could do it no less if they were to be made a single continuum. Therefore He could move the entire world even if there were no place …[93]

7

We should note the liberating power of the Christian conception of God. It encouraged, even forced thinkers to engage in thought experiments that, in order to safeguard divine freedom and omnipotence and thus to satisfy what the Condemnation of 1277 had made official doctrine, had to challenge the authority of Aristotle. More specifically it invited speculation at odds with the then still generally prevailing Aristotelian image of the cosmos. It invited, we can say, possible world speculations.

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[93] Hyman and Walsh, p. 701.

Such speculations rendered what were believed to be necessary laws of nature contingent. There is no good reason for their being the way they are. They could be other than they are, certainly could be other than Aristotle thought they were. Such speculations had to make those who followed them more receptive to claims that the laws of nature are actually other than Aristotle thought.

This to be sure, was not an issue to which the authors of the Condemnation would appear to have given much thought. What concerned them would seem to have been the way the new philosophy supported a new worldliness that threatened to undermine morality.

7. Human Freedom

1

One thing that must have concerned the authors of the Condemnation would seem to have been the way the philosophy of Aristotle, mediated by his Arab interpreters, supported a worldliness that threatened to undermine what they took to be morality. Note the concluding propositions 213-219.

> 213. That death is the end of terrible things. — [This is] an error if it rules out hell's terror, which is the final one.

Thomas Aquinas himself had written in his commentary on the *Nicomachean Ethics*: *maxime terribilis est mors*, "most terrifying is death." But that would seem to deny the terrors of hell and Thomas himself corrected this and added *huius vitae*, "of this life."[94] That orthodoxy should have found the unqualified statement unacceptable is not surprising. Although, even with the qualification, the claim invites challenge: are there not things worse than death even in this life? It is not difficult to come up with examples.

The following proposition is also obviously unacceptable to a convinced Christian:

> 214. That God cannot grant perpetuity to a transmutable and corruptible thing.

The proposition rules out the possibility of an afterlife. It suggests that death ends all for the individual, as does the proposition that follows:

> 215. That a corrupted body cannot come back the same in number. Neither will it rise again the same in number.

This refuses to accept the resurrection, again denying Church teaching on a central point. As in the preceding, the source would seem to be Boethius' *De aeternitate mundi*, who, however, does not present this as his own view, but as Aristotle's. Philosophy cannot make sense of an afterlife:

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[94] ST II, II, 64, 5, 3

> 216. That a philosopher must not concede the resurrection to come, because it cannot be investigated by reason. — This is erroneous because even a philosopher must "bring his mind into captivity to the obedience of Christ" (cf. II Cor. 10:5)

Philosophy, the Condemnation insists, must submit to Christian Wisdom.

> 217. That to say that God gives happiness to one [person] and not to another is [to speak] without reason and [to utter a mere] figment.

According to the condemned proposition God does not have this sort of relationship to individual human beings. It is pointless to pray for favors or to fear Divine retribution. — This would have deprived the Church of its hold on the people and of much of its income.

> 218. That nothing can be known about the understanding after its separation [from the body].

This renders talk about an afterlife pointless. Siger would seem to be the target, although he does seem to admit that the prophets can reveal what is hidden from the philosopher.

> 219. That the separated soul does not suffer at all from fire.

Easy to defend on Aristotelian grounds, this again removes the threat of hell fire. It is easy to understand why the Church thought such teachings unacceptable.

2

The this-worldly spirit that the Church was opposing is apparent from the following propositions:

> 172. That happiness is had in this life and not in another.

The *Nicomachean Ethics* could be cited in support.

> 173. That happiness cannot be imparted immediately by God.
>
> 174. That after death man loses every good.
>
> 175. That because Socrates was made unable to receive eternity, if he is going to be eternal, it is necessary that he be transmuted in nature and species.
>
> 176. That God or an intelligence does not infuse knowledge into the human soul in a dream, unless by means of a celestial body.

177. That raptures and visions are caused only by nature.

Even more of a threat were propositions that denied the Christian virtues.

200. That no other virtues are possible, except the acquired or the innate.

The condemned proposition would do away with grace. Theology has to insist that there are infused virtues.[95]

The following propositions, too, pose an obvious provocation:

201. That if something is said to be heretical because it is contrary to the faith, [then] one should not care about the faith.

Common sense should trump charges of heresy.

202. That one ought not pray.

God is not to be thought of as a kind father, who in some way is influenced by our prayerful entreaties. What sense can we make of a God who treats human beings unequally, favors one over another?

203. That one should not to confess, except for show.

Ideas like this were floating about at the time, especially among the Brothers of the Free Spirit, to whom I shall turn next time.

204. That one ought not care about being buried.

Hissette takes this to be no more than a provocative claim made by some rebellious students. But the proposition does suggest a lack of respect for the body, difficult to reconcile with the Christian belief in a bodily resurrection.

205. That simple fornication, for instance between an unmarried man and an unmarried woman is not a sin.

This challenges what Paul had said in I Co 5, 1-13; 6, 13-20, where he condemns the immorality of those who engage in acts, which he says, even pagans would not approve of, e.g. making love to one's father's wife. Those who sleep with a prostitute are said to defile the body, which is God's temple. Moses Maimonides argued that such acts were not against the natural law.

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[95] Cf. *Nicomachean Ethics* 1103 a 14 ff.

That this was not just a verbal challenge is demonstrated by the literature of the time. I mentioned already the *Roman de la Rose*. Or check out Andreas Capellanus' *De Amore* (1184-86).[96] But these are just two examples.

> 206. That a sin contrary to nature, for instance perversion during sex — even though it is contrary to the nature of the species, nevertheless is not contrary to the nature of the individual.
>
> 207. That pleasure in sexual acts does not prevent the act or the use of the understanding.

The condemned proposition may have been directed against St. Augsustine, who thought that in the sexual act sensuality triumphs over reason. No surprise therefore that the authors of the Condemnation, with their Augustinian sympathies, should condemn it.

3

One target of the Condemnation was what was perceived as spreading immorality, presumably especially in the large student population. And it was to defend the individual's responsibility, which depended on the individual's freedom, that the Condemnation rejected an Aristotelian naturalism that tended toward determinism and, among many, toward an astral determinism. It is indeed easy to see how astrology might be justified given a generally Aristotelian framework. The Condemnation thus presents itself to us as a defense of both divine and human freedom. We touched on the former last time.

There is of course tension here: how are we to resolve the conflict between divine omniscience and human free will? If God knows what I am going to do even before I do it, am I still free?

But let us consider some of the propositions that address the freedom of the individual.

> 151. That the soul wills nothing unless it is moved by another. Hence the following proposition is false: the soul wills by itself. — This is erroneous if what is meant is that the soul is moved by another, namely by something

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[96] Cf. http://www.courses.fas.harvard.edu/~chaucer/special/authors/andreas/de_amore.html

> desirable or an object in such a way that the desirable thing or object is the whole reason for the movement of the will itself.

The condemned proposition would deny human freedom and thus responsibility. The condemnation insists that while natural desire does play a significant part in determining our choices, it is not sufficient to explain how the individual chooses.

> 152. That all voluntary motions are reduced to the first mover. — [This is] an error unless it is meant [that they are reduced to the absolutely first, non-created mover, and meaning motions according to substance, not according to deformity.

The individual bears responsibility for his misdeeds and cannot excuse himself by insisting that God bears responsibility for his misdeeds. Here we are touching on the tension between Divine omnipotence and omniscience and human freedom.

As I mentioned, the Condemnation is also concerned to defend human freedom against claims made by those enamored with astrology and committed to an astral determinism.

> 153. That the will and the understanding are not actually moved by themselves but by an everlasting cause, namely the celestial bodies.
>
> 154. That our will is subject to the power of the heavenly bodies
>
> 155. That a sphere is the cause of a doctor's will to cure.
>
> 156. That the effects of the stars upon free choice are hidden.

These propositions show that astrology was considered a serious problem. And the Aristotelian cosmos invited such thoughts.

Freedom of the will is also at issue in the following propositions:

> 157. That when two goods are proposed, the stronger moves more strongly. — This is erroneous unless one is speaking from the standpoint of the good that moves.

Once again the condemnation rejects all determinism and insists on human freedom. According to Thomas Aquinas I am free when I judge that this is what I want to do. My

conscience can overrule what desire would have me do and an evil person can overrule conscience. But I am not determined in my actions by the strength of a pre-given good.

> 158. That in all his actions man follows his appetite and always the greater appetite. — This is erroneous if what is meant is the greater in moving power.
>
> 159. That the appetite is necessarily moved by a desirable object if all obstacles are removed. — This is erroneous in the case of the intellectual appetite.
>
> 160. That it is impossible for the will not to will when it is in the disposition where it is natural for it to be moved and when that which by nature moves remains so disposed.

All these propositions challenge freedom by subjecting our actions to appetite.

> 161. That in itself the will is undetermined to opposites, like matter, but it is determined by a desirable object as matter is determined by an agent.

The following two propositions may target Thomas Aquinas:

> 162. That the science of contraries alone is the cause for which the rational soul is in potency to opposites, and that a power that is simply one is not in potency to opposites accept accidentally and by reason of something else.

Pure reason faces the possibility of doing p or not-p but knows no good reason to prefer either; but as actors we relate differently to things. To be sure, we can construct situations where conflicting desires are so evenly balanced that the actor is quite uncertain about what to do.

> 163. That the will necessarily pursues what is firmly held by reason and that it cannot abstain from that which reason dictates. This necessitation, however, is not compulsion but the nature of the will.

You are not free to believe that 2+2 = 5. Reason necessarily binds freedom, but such binding is not compulsion, Thomas Aquinas insists; it is indeed true freedom. You are truly free when bound by knowledge of what is truly good. The condemnation is concerned that by thus subjecting the will to reason, freedom is once again lost. As 164 puts it:

164. That man's will is necessitated by his knowledge, just as the appetite of a brute [animal is].

165-169 develop this theme.

165. That after a conclusion has been reached about something to be done, the will does not remain free, and that punishments are provided by law only for the correction of ignorance and in order that the correction may be a source of knowledge for others.

Jeremy Bentham might be taken as a representative of the position being condemned here. But according to Plato, too, it would seem that those who act badly do so only because they are ignorant about what is in their best interest, were Bentham and Plato would of course disagree about how "best interest" is to be understood.

166. That if reason is rectified, the will is also rectified. — This is erroneous because contrary to Augustine's gloss on this verse from the *Psalms:* My soul has coveted too long, and so on [Ps. 118:20], and because according to this, grace would not be necessary for the rectitude of will but only science, which is the error of Pelagius.

Once again Thomas Aquinas is close to the condemned view and Hissette defends him against the charge of the censors.

167. That there can be no sin in the higher powers of the soul. And thus sin comes from passion and not from the will.

That a Christian would have to reject this seems evident.

168. That a man acting from passion acts from compulsion.

Especially amorous passions are said to enslave the will. The Condemnation rejects such views.

169. That as long as passion and particular science are present in act, the will cannot go against them.

The particular judgment, according to Thomas Aquinas, is practical and itself an expression of the will, which thus cannot go against it. At issue is once again the close tie between reason and freedom on which Thomas insists, both in the case of God and in the case of man, and which the Condemnation calls into question.

4

Following Augustine, the authors of the Condemnation take the infinity of God's wisdom for granted. And they take for granted the authority of Scripture. But Aristotle, they are convinced, should not be granted a comparable authority: his works are after all but products of human reason. And even less should his Arab commentators, who often don't even agree on how to read the philosopher. They offer one, perhaps even plausible account of nature, but such an account should not be invested with the authority of absolute truth, certainly not, where such truth conflicts with Christian Wisdom. Aristotle, too, was a fallible mortal. And where there are conflicts between revealed truth and such human accounts, it is clear which one will have to yield.

Still, the hold Aristotle had on those who speculated about nature was immense. To many he represented, as Averroes thought, the very peak to which human reason could ascend. But, the Condemnation insists, freedom, and especially the freedom of thought, should not be imprisoned in Aristotle's philosophy of nature.

Consider this thought experiment of Nicole Oresme, one of many designed to test the Aristotelian view of nature. Presupposing the general validity of the Aristotelian cosmos, Oresme imagines

> the case of a tile or copper pipe or other material so long that it reaches from the center of the earth to the upper region of the elements, that is up to heaven itself.
>
> I say that, if this tile were filled with fire except for a small amount of air at the very top, the air would drop down to the center of the earth for the reason that the less light descends beneath the lighter body.[97]

The thought experiment is designed to call into question Aristotle's doctrine of proper place, which is the foundation of his physics. Natural place becomes a relative notion. But if so, the Aristotelian account of natural movement must be abandoned. And Oresme does not hesitate to offer his own alternative: "the natural law concerning heavy and light bodies ... is that all the heavy bodies as far as possible are located in the middle of light

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[97] Nicole Oresme, *Traité du Ciel et du Monde*, chap. 4, fol. 5,col. d, quoted in Duhem, p. 478

bodies without setting up for them any other motionlesss [or natural] place."[98] Oresme is moving here towards the modern understanding of gravity. And, as Duhem points out, with his theory of motion Oresme opens the possibility of viewing each planet as composed of a heavy earth surrounded by the other elements, a possibility that will be seized on eagerly by the 15th century cardinal Nicolaus Cusanus.

In the wake of the Condemnation of 1277, such thought experiments were first of all meant to show us that God could have created a rather different world than the world that Aristotelians were insisting was the only possible world. Human knowers are unable to understand why God created this world with this make-up and these laws and why and how he chooses to preserve it. Such mysteries we cannot fathom. Nominalist emphasis on the primacy of God's will is thus part of the attempt to bring human beings to an understanding of the difference between the human and the divine. Implicit in such appreciation is a certain cognitive humility, even resignation.

But the other side of such resignation is the liberation of the human imagination from the weight of its historical, in this case Aristotelian inheritance and a willingness to settle for something less than absolute truth. Since we cannot hope to fathom the reasons God had in creating the world, we have to be content with the models we make ourselves of the workings of nature. Of these models we can demand that they be adequate to observed appearances; and we can demand of these models also that they be as easy as possible to understand; as Descartes might have put it, as clear and distinct as possible. And so Nicolaus Cusanus will argue that our investigations, be they directed towards God, be they directed towards nature, ought to make use of mathematical symbols, and not because God wrote the book of nature in the language of mathematics, as Galileo later was to assert and Descartes attempted to prove, but because the human mind is dealing here with its own creations. Of the models we construct we can demand that they be as clear as possible. We can also demand of them that they dispense with appeals to divine purpose: is that purpose not so infinitely beyond us as to be useless to the human knower? Once again: we understand things to the extent that we can reconstruct them, be it in thought, be it in fact.

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[98] Quoted in Duhem, p, 477. S

To be sure, the authors of the Condemnation of 1277 and those thinkers who found themselves in fundamental agreement with its stance wanted to teach something quite different: they wanted to oppose the arrogance of philosophers who, appealing to Aristotle, claimed independence from the tutelage of the Church. In opposing Aristotelian philosophy, they opposed an expression of what they considered the sin of pride. And should we not extend the condemnation to all theory that claims to pursue the truth, not for the sake of salvation, nor even for the sake of practice, but just in order to know? The challenge is thus likely to extend to that peculiar desire and wonder in which philosophy has been said to have its origin.

In our very first session I pointed out that this Christian suspicion of theory could and often did claim Socrates for a pagan precursor. Had not Socrates renounced his youthful excursions into the philosophy of nature and regretted such thinking that neglected the needs of the soul.[99] When Nicolaus Cusanus would have us become learned about our ignorance he follows that theme. But with him this is only one theme. Equally prominent is another that, following Aristotle, makes the desire to know constitutive of man and then goes on to legitimate that desire by saying that since God instilled in us such a desire, it cannot be vain. Human beings should not renounce scientific inquiry even if it can only approximate reality and never seize divine truth. We are on the threshold of Renaissance humanism, although, looking back, one might also say that Cusanus is just following Thomas Aquinas, who wrote, *omnis scientia bona est*, "all science is good."

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[99] Cf. *Phaedo*, 99d

8. The Condemnation of Meister Eckhart and the Heresy of the Free Spirit

1

For Europe the second half of the thirteenth and the first half of the fourteenth century were a time of significant change. Cities were becoming more important. Society no longer divided just into the peasantry, the nobility, and the clergy. But change also brought unrest and upheaval. Both emperor and pope had lost much of their authority. This loss was made visible to all by the Interregnum (1254-1273), this "terrible time," when there was no Emperor to bind the centrifugal forces that were emerging everywhere, and by the papacy's Babylonian Captivity (1309-1377) in Avignon, which threatened to make the Pope a tool of the French king. Leaders of the Church, too, proved human, all too human, power-hungry and full of greed. Resistance to the Church and its taxes was especially apparent in the flourishing cities, many of which had learned to live with papal bans that denied them, often for decades, the consolation of the sacraments. And town after town was torn apart by struggles that pitted bishops and princes, patricians and artisans, have's and have-not's against one another.

It was into this age of upheavals that Eckhart was born in 1260, in Central Germany, presumably to reasonably well off parents, although we know next to nothing about his early years and surprisingly little about the details of the rest of his life. Eckhart is thus five years older than Dante. As was not at all unusual for a young man of his class, Eckhart joined the Dominican order. Unusual, however, was his rapid advancement. In 1298, after a period of teaching, he was made prior of the Dominican convent in Erfurt and put in charge of the Dominicans in Thuringia. Two years later, i.e. 23 years after the Condemnation of 1277, he was sent to Paris to both study and teach. Here he received his master's degree in 1302. A year later he returned to Germany, having been elected provincial of the province of Saxony. The fact that he was reelected to that office in 1307 and also appointed vicar-general of Bohemia suggests that he must have been an able administrator. When his term expired in 1311 he returned to Paris to

teach. In 1314 we find him in Strasbourg, teaching and preaching. Three years later he seems to have been made a prior in Frankfurt. In 1320 his order called him as a professor to Cologne. Here his all too successful teaching and especially preaching were soon found to be threatening. Already at Strasbourg he was suspected of holding heretical views. In Frankfurt his ethics had been questioned, but after an investigation, the allegations against him were found to be without substance. And in 1325 in Venice, at a general chapter of his order, Eckhart was suspected of holding and disseminating heretical views. Pope John XXII ordered an investigation. Once again Eckhart's views were declared orthodox by a fellow Dominican, a Father Nicholas. But at the court of the archbishop of Cologne, Heinrich von Virneburg, charges of heresy were raised against him once more in 1326. Eckhart wrote a long Defense of his views — we shall turn to it later — and asked that the case be transferred to the pope's court at Avignon. He appears to have died before word could reach him that pope John XXII considered him to have been "deceived by the father of lies who often appears as an angel of light" into "sowing thorns and thistles among the faithful and even the simple folk."

In this connection we should note that the kind of sermon of which Eckhart became the unsurpassed master represents a genre that became popular at this time. We know that the development of this genre was pushed especially by the Dominicans to address a quite specific social problem that had emerged: At that time, especially in the upper classes, there were significantly more women than men. Privileged males no doubt lived more dangerously, engaged as they were so often in seemingly unending feuds or in some crusade; the Church, too, attracted many to an at least nominally celibate life. The question was then: what to do with young women who now could find no suitable husbands or whose husbands had died. One obvious answer was to send them off to some convent or at least to affiliate them in some other way with the church. But who should guide and direct passions and energies that were denied a natural outlet by their society?

In 1267 Pope Clement IV assigned the spiritual care of these nuns to the Dominicans. Responding to this charge, a directive was issued by the head of the German Dominicans, Henry of Minden (1286-90), that the word of God should be preached to the sisters often "by learned friars in a manner suited to the training of

sisters."[100] “They should exhort the sisters to be detached from themselves and from all earthly things, and to strive for mystical union with God.” "Such instruction has rightly been called the 'birth hour' of German mysticism."[101] A new spirituality is born of this encounter of learned monks, well versed in Aristotle and his Arab commentators, and women, quite a number of whom belonged to the highest nobility, who were forced to turn inward by circumstances that denied them husband and family.

Eckhart's sermons were part of this effort to offer consolation to such women and to help channel pent-up energies in a direction acceptable to the Church and to the establishment. Often, to be sure, these energies were set free in ways the Church found impossible to control.

What we have in these sermons then is an expression of a deliberate attempt to encourage a movement of introversion: the spiritual realm was to compensate these women for the kind of life that the world denied them. Since most of them had not been taught Latin, the sermons had to be in the vernacular. Out of this emerged a new spirituality, also a new sense of freedom.

The significance and also the danger of such efforts is underscored by the readiness of many of these women to embrace heresies such as that of the Free Spirit. I shall have more to say about these heresies. Here I only want to suggest that to understand the archbishop's fears, we have to place Eckhart's teaching activity in the context of the social situation at the time.

2

Despite the flourishing cities, Europe remained very much a peasant society; the paradigmatic life was still that of the peasant. And yet that peasant society gained an outside with the emergence of cities as major centers of wealth and therefore of power. And it was these cities that the Dominicans considered their proper arena.

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[100] Heinrich S. Denifle, “Meister Eckharts lateinische Schriften und die Grundanschauung seiner Lehre,” *Archiv für Literatur- und Kultugeschichte* 2 (1886), pp. 645f.

[101] See Friedrich Heer, "Einleitung," *Meister Eckhart. Predigten und Schriften* (Frankfurt am Main: Fischer Bücherei, 1956), pp. 14-15.

> Bernardus valles, montes Benedictus amabat, Oppida Franciscus, celebres Dominicus urbes. (Bernard loved the valleys, Benedict the mountains, Francis the towns, Dominic the populous cities).[102]

In these cities a new wealth displayed itself that provoked denunciations of property and the power and privilege it bought as temptations of the devil. The more pronounced the split between have's and have-not's, the more meritorious a life of voluntary poverty, such as that lived in exemplary fashion by St. Francis, had to seem to those revolted by a material culture that threatened to drown all genuine spirituality.

The move from country to city inevitably meant a profound dislocation, that brought not only new opportunities, a new freedom, but also a new disorientation and insecurity. And in the cities we find, not only artisans and merchants, but also a new, rootless, often unemployed segment of society; the cities attracted especially drop-outs from the establishment, including the merchant class, the aristocracy, and the priesthood, including especially the Beghards and Beguines. The name is probably derived from the old Flemish word *beghen*, in the sense of "to pray", not "to beg."[103] Unlike the members of the established religious orders, these Beghards and Beguines made no special vows, but often lived, and that is especially true of the women, in quasi convents. A number of these beguinages have survived and are now tourist attractions in such cities as Ghent and Bruges.

The men would seem to have been more restless. As Noman Cohn puts it:

> Beghards were an ill-defined and restless fraternity — running about the world, we are told, like vagabond monks.... These self-appointed 'holy beggars were full of contempt for the easy-going monks and friars, fond of interrupting church services, impatient of ecclesiastical discipline. They preached much, without authorization, but with considerable popular success.[104]

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[102] http://www.newadvent.org/cathen/12354c.htm:L Home > Catholic Encyclopedia > P > Order of Preachers

[103] Home > Catholic Encyclopedia > B > Beguines & Beghards

[104] Norman Cohn, *The Pursuit of the Millennium*, 2nd ed. (New York: Harper Torchbooks, 1961). p.164.

They appealed especially to women. It is among these displaced persons that we find a new sense of freedom emerging, a freedom that in the heresy of the Free Spirit was to become "so reckless and unqualified that it amounted to a total denial of every kind of restraint and limitation."[105] The name is significant. Albertus Magnus (1206 -1280), the teacher of Thomas Aquinas in Paris, but very much associated with Cologne, criticized the extreme views of these heretics:

> In the *Liber Manualis* Albertus Magnus accuses the heretics of rejecting "Christ's divinity, the authority of Scripture and Church, the value of the sacraments," because they claimed to have become more divine than Christ Himself. According to their doctrine, Albertus continues, "Man must abstain from exterior things, and follow only the signs of the spirit within." By peeling away the constraint of earthly law and necessity, the soul "can become God; the soul is eternal and can, through self-exaltation, become the principle of universal life." They believed, therefore, that "it was enough to act like Christ in order to equal Him, and to outdo in saintliness all those revered by the Church."[106]

At the center of this heresy, as at the center of orthodox mysticism, we find the desire for an immediate apprehension of God and communion with him, here, however, raising itself to the conviction that such communion could actually be achieved, rendering the adept incapable of sin. From this inability to sin, these self-styled perfect men drew the conclusion that it was alright for them to do what was ordinarily forbidden. That it was alright for them not only to eat on fast days, but to satisfy all the body's desires, alright for them to lie, steal, deceive, and even kill. Spiritual freedom came to mean freedom from all the tales of devil, hell, and purgatory with which priests sought to frighten an unenlightened humanity, leading even to claims that the truly enlightened no longer had a need for God.[107] And again and again we meet with demands for a transformed attitude to the body. Refusing to accept the Church's teaching that spiritual freedom must be

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[105] Cohn, p. 150.
[106] http://laingsociety.org/colloquia/philosophy/zweig.heresy3.htm: Paul Zweig, "The Heresy of Self-Love: A Study of Subversive Individualism."
[107] Cohn, p. 184.

purchased at the price of the world and its pleasures, the Free Spirit insisted that true freedom must embrace the whole human being and manifest itself in the world. Among other things this led to an eroticism that saw in free love a sign of a spiritual emancipation that restored to humanity the innocence of Adam and Eve whose lovemaking knew nothing of shame.[108]

Going back at least to the twelfth century, the heresy began to spread rapidly towards the end of the thirteenth century, and it was especially widespread among Beghards and Beguines. The Rhineland, which was just then undergoing rapid change proved especially fertile ground: Cologne had by then developed into the largest city in all of Germany. Here a group of such heretical Beghards, living off alms, had formed a house of voluntary poverty.[109] We hear of priests struggling desperately to keep up with the subtlety of these people who, with little to do, loved to argue. In 1307 and 1322 the archbishop called synods to deal with their increasing propaganda. The archbishop Heinrich von Virneburg, responsible for the condemnation of Meister Eckhart, had proved particularly zealous in his persecution of these heretical Beghards. Some time in the mid-twenties their leader, the Dutchman Walter, was caught, tortured, and, unwilling to recant or betray his followers, burnt.[110] At the same time a burgher of Cologne who had come to suspect his wife's doings, disguised himself and followed her to witness and participate in a clandestine meeting that ended in an orgy. The authorities responded by burning and drowning more than fifty of these perceived heretics. But although forced underground, the movement continued to flourish, especially in the urban centers along the Rhine.

Some of the details sound familiar: We know, for example, that members of the brotherhood liked to sew patches of colored fabrics on their garments, even if they did not need patching. Such patches seem to have become something like a uniform. And — and this sounds a bit unbelievable — I was told by the Swiss psychiatrist Erna Hoch that in medieval Basel these people were called *Hippen*, inviting an investigation into the word "hippies."

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[108] Cohn, p. 152.
[109] Cohn, p. 165.
[110] Cohn, pp. pp. 165, 169, 171.

The archbishop of Cologne was also suspicious of the Dominicans, and also the Franciscans. He felt that they were abetting a spirituality that threatened to leave the Church behind altogether. And Meister Eckhart was the most prominent example of what he found so objectionable.

Such suspicion found one expression in the charges brought against Meister Eckhart. In *The Pursuit of the Millennium* Norman Cohn cites a number of texts that make it easy to understand why the church authorities should have been made nervous by what Meister Eckhart had to teach. Here a statement from a heretical treatise that was found in a hermit's cell near the Rhine:

> The divine essence is my essence and my essence is the divine essence. ... From eternity man was God in God.... From eternity the soul of man was in God and is God... Man was not begotten, but from eternity was wholly unbegettable; and he could not be begotten, so he is wholly immortal.[111]

The central thought is not very distant from what some of the Arab philosophers had taught. Recall Avicenna's teaching that when we transcend all sense experience in reflection and withdraw into the inner core of our consciousness, we also transcend ourselves as individuals and rejoin that soul in which all humanity is one. That is not so very different from the text I just read. The essence of the individual is here equated with the essence of God: in its essence the soul is nothing other than God. How is this essence understood? Important here is the thought that the soul is not bound by the body.

There is a well-known German song, which has for its title and first line, *Die Gedanken sind frei*, "thoughts are free." It was picked up by Pete Seeger, who just died. He recorded the song in 1966 in his *Dangerous Songs* album. More recently it was picked up by the band *The Brazilian Girls*. The prehistory of the song can be traced back to the greatest German minnesinger Walther von der Vogelweide (1170-1230).[112] Versions were sung at the time of the peasant wars, i.e. in the 16th century, and again at the time of the Revolution of 1848/49, when the song was forbidden, as it was again by the Nazis. At a series of seminars on space that I gave in Germany I had the students sing it. The content of the song is very much in the spirit of these Beghards. Even if they put

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[111] Cohn, p., 81.

[112] http://en.wikipedia.org/wiki/Die_Gedanken_sind_frei

me in prison, the fourth stanza tells us, they cannot imprison my thoughts. As a being of spirit I transcend myself as an embodied self. What limits are set to the freedom of thought?

The heresy of the free spirit insisted that the human power of self-transcendence allows the individual to achieve unity with God. Here a statement attributed to an unnamed woman associated with the order of the Free Spirit: "The soul is so vast that all the saints and angels would not fill it."[113] This is to claim that everything finite, everything God has created, including saints and angels, is infinitely small compared to the vastness of the human soul. The Brothers of the Free Spirit, to be sure, thought themselves able to raise themselves above the sordidness of everyday reality, able to shed the burden of original sin, and not just occasionally, but for good. Such hubris is attributed by the mystic Ruysbroeck to his heretical counterpart. Here is what that heretic claims:

> When I dwelt in my original being and in my eternal essence there was no God for me. What I was I wished to be, and what I wished to be I was. It was by my own free will that I have emerged and become what I am. If I wished I need not have become anything and I would not now be a creature. For God can know, wish, do nothing without me. With God I have created all things and it is my hand that supports heaven and earth and all creatures... Without me nothing exists.[114]

The human power of self-transcendence is here pushed to a point where the boundary separating God and the human being has to evaporate. To a modern reader, a reader familiar with say Kant or the thought of Heidegger, the passage is likely to have an idealistic tinge: what is asserted is that human being is the ground of all other being. Take away human being and all other beings, too, must disappear.

As Cohn points out, the mystic Ruysbroeck attributes these lines to a heretic. What he does not say is that Ruysbroeck must have considered Meister Eckhart that heretic, despite the fact that these two mystics, Ruysbroeck and Eckhart are often associated. One of Eckhart's sermons is clearly the source on which Ruysbroeck relies:

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[113] Cohn, p. 181.
[114] Cohn, p, 184.

> When I stood in my first cause, I had no God and was cause of myself. I did not will or desire anything, for I was pure being, a knower of myself by divine truth. Then I wanted myself and nothing else. And what I wanted I was and what I was I wanted, and thus existed untrammelled by god or anything else. But when I parted from my free will and received my created being, then I had a god. For before there were no creatures, God was not god, but rather he was what he was. When creatures came to be and took on creaturely being, then God was no longer God as he is in himself, but god as he is with creatures.
>
> Now we say that God, in so far as he is only God, is not the highest goal of creation, nor is his fullness of being as great as that of the least of his creatures, themselves in God. And if a fly could have the intelligence by which to search the eternal abyss of divine being out of which it came, we should say that God, together with all that God is, could not give satisfaction to that fly. Therefore, we beg God that we may be rid of God, and take the truth and enjoy it eternally, where the highest angels and the fly and the soul are equal, there where I stood and was what I wanted. And so we say: if a person is to be poor in will, he must will and want as little as when he not yet was. This is how a person is poor, who wills nothing.[115]

Consider the self-understanding that speaks to us out of this passage. An original state is contrasted with another: human being has parted from its origin. In this latter state, a person understands him- or herself as a creature and thinks God from this creaturely perspective. But thought in that way, God depends on human being. He has no independent reality. God as He is can be found only when we transcend the entire

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[115] "*Beati pauperes spiritu, quia ipsorum est regnum coelorum*," Quint 2: 492-494; trans. Blakney, pp. 228-229. Translation changed. Surprisingly Norman Cohn does not note this connection, indeed hardly mentions Eckhart in his *The Pursuit of the Millennium*. He does not appear in the index. Cohn does point out that *Schwester Katrei*, one of only two fragments (of what must have been a substantial literature produced by the adepts of the Free Spirit) to have survived the Inquisition's persecution, "was protected by being ascribed — quite wrongly — to the great Dominican mystic Meister Eckhart" (p. 151).

dimension of the finite, of time, and of creatures. To free myself from my creaturely existence in this manner I also have to free myself from my creaturely needs and desires. It is easy to see why Schopenhauer should have had such high praise for Meister Eckhart.

The experience out of which such texts are written blurs the distinction between human and divine being. The human being identifies with his or her essential self, with the ground of her being, the womb from which she came, which radically transcends her time- and space-bound creaturely self. A clear distinction between this essential self and God is no longer possible. That origin from which we are said to have emerged is an infinite abyss that we may call God or that free will from which we departed when we assumed our creaturely being. But notice that turning to this infinite ground does not help us to find our place in the world. Indeed concern for that place would appear to be incompatible with the kind of poverty of which Eckhart is here speaking. The enlightened individual, it would seem, does not need to worry about what the world thinks important and values, about the standards by which it judges: does he or she not stand above that world's measure and law? To prove to himself his own enlightenment such an individual might even turn against the established order. Small wonder that such guardians of the establishment as the archbishop of Cologne were worried.

To be sure, Eckhart did attempt to distance himself from the brothers and sisters of the Free Spirit, but his sermons do not make it easy for us to draw a sharp distinction between their "wild" mysticism and what Eckhart taught. There is the obvious objection that these sermons are not a reliable guide to what Eckhart actually thought: did Eckhart himself not suggest in his "Defense" that they distorted what he taught, "since even learned and studious clerics take down what they hear frequently and indiscriminately in a false and abbreviated way."[116] We can assume that those who preserved these sermons distorted what they heard. But what matters to me here is not to recover "the real Eckhart," but a pattern of thought that speaks to us more directly in these sermons than in academic scholastic treatises precisely because, co-authored no doubt in varying degrees by those who preserved Eckhart's message, it does not belong to some particular

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[116] "Defense," Meister Eckhart, p. 74. trans. Blakney, p. 266.

individual, but to us all. It is a seductive, disturbing pattern. The insistence on freedom here threatens every established order.

9. Medieval Communists

1

I spoke of a new sense of freedom developing in the fourteenth century, especially in the larger cities, that could only frighten the establishment. I pointed out that one center of this awakening freedom were the convents in the large cities on the Rhine, especially Strasbourg and Cologne. Energies were set free that the Church found difficult or even impossible to control. The danger this new sense of freedom posed to the establishment is underscored by heresies such as that of the Free Spirit.[117]

Such heretics could cite in their support 2. Cor. 3, 17: *Ubi autem spiritus domini, ibi libertas*. "Where the Spirit of the Lord is, there is freedom." The question is of course: how we are to understand this presence of the Lord. Did it mean that those in whom the Lord was truly present no longer had to feel bound by the laws of their society? In our last session I pointed out that along with this new freedom went what we can call with Kierkegaard a teleological suspension of the ethical, where the ethical is suspended not for the sake of Kierkegaard's abysmal God, but for the sake of an equally abysmal freedom.

The threatened loss of the ethical dimension is particularly apparent in this text by the Rhenish mystic Heinrich Seuse (Suso), who had studied with Eckhart in Cologne and courageously defended his master against the charges that had been brought against him, even when such a defense had become impolitic. Seuse tells us of a disciple, who, lost in meditation on a bright Sunday, sees an incorporeal image:

> He began to ask: where do you come from?
>
> It said: I did not come from anywhere.
>
> He said: Tell me, what are you?
>
> It said: I am nothing.
>
> He said: What do you will?
>
> It answered and said: I do not will.

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[117] Cf. Eleanor McLaughlin, "The Heresy of the Free Spirit and Late Medieval Mysticism," Medievalia et Humanistica N.S. 4 (1973)

> He, however, said: This is a miracle! What are you called?
>
> It said: I am called the wild that has no name (*daz namelos wilde*).
>
> The disciple said: You may rightly be called the wild, for your words and answers are indeed wild. Answer me now one question: What is the goal of your insight?
>
> It said: Unbound freedom.
>
> The disciple said: what do you call unbound freedom?
>
> It said: When a man lives entirely according to his own will, without anything other (*sunder anderheit*), without looking to before or after.[118]

To be sure, it is not *daz namelos wilde*, but the disciple who speaks for Seuse in Chapter Seven of *The Book of Truth*. This dialogue bears the title "What Those Men Lack, Who Live False Freedom" and ends with the disciple insisting that the person who becomes one with Chris yet remains distinct from Him, and with an assertion of the importance of making proper distinctions. Crucial here is the difficult, but so important attempt to distinguish true from false freedom.

As Loris Sturlese has shown, *daz namelos wilde*, which here represents the brotherhood of the Free Spirit, is able to appeal to some of Eckhart's theses that had been condemned by the bull of John XXII, and just because of this proximity Seuse found it necessary to defend his master against what he considers a misinterpretation.[119] But this acknowledges that there is a strand in Eckhart's thought that invites such misinterpretation. The line that separates heretical from orthodox texts is indeed often difficult to draw.

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[118] Heinrich Seuse 9 e, *Das Buch der Wahrheit, Daz buechli der warheit*, ed. Loris Sturlese and Rüdiger Blumrich, intro. Loris Sturlese, trans. Rüdiger Blumrich, Mittelhochdeutsch — Deutsch (Hamburg: Meiner, 1993), pp. 56-57. Cf. Cohn, p. 186. See also Wolfgang Wackernagel, The mystical Marriage of the Blessed Henry Suso, Diogenes 208: 100 – 113, dio.sagepub.com/cgi/reprint/52/4/99.pdf?ck=nck; Wolfgang Wackernagel, "Some Legendary Aspects of Meister Eckhart," Talk given on the 10th Annual Conference of The Eckhart Society (http://www.op.org/eckhart/default.HTM), in Oxford, August 29th 1997 - published in The Eckhart Review, Spring 1998 www.synaptic.ch/MuseumHermeticum/ MaitreEckhart/framapho.htm

[119] Sturlese, xv - xxi.

I began by suggesting that modernity has one origin in an understanding of God that places special emphasis on his infinity. That understanding opens an abyss: as all definite content is recognized to be profoundly incompatible with the d ivine, the divine comes to be thought of as "the wild that has no name." But a God who has become so indefinite threatens to evaporate altogether. God is transformed into an empty transcendence that cannot provide human beings with a measure. Experience of such a God cannot be distinguished from the experience of a freedom that, acknowledging no measure, has to degenerate into license. That is one reason why Thomas Aquinas and later Kant would have reason bind freedom. Only then does freedom become true freedom. But as Kant also had to recognize and as Kierkegaard and Dostoevsky knew: human beings are capable of rejecting that bond. Kierkegaard spoke of a teleological suspension of the ethical. And such a suspension becomes dangerous when it descends from the spiritual or the ivory tower of learned academic discussions into this world, as it does when Abraham, obedient to his God, decides to sacrifice Isaac.

2

As we have seen, and as the phrase, “teleological suspension of the ethical” suggests, characteristic of such a mysticism is the discovery of a freedom that threatens to leave the law behind. With this goes an emancipation from what is usually called conscience, the disappearance of a sense of ought. The story of the fall links freedom to the snake's promise that eating from the tree of the knowledge of good and evil they shall become as God. The brothers of the free spirit claimed something very much like this. And keep in mind also that Lucifer, the light bringer, is supposed to resemble God, so much so that his seductive appeal may be mistaken for that of God, a confusion, the Condemnation suggests, of which Meister Eckhart may have been a victim. — And we should perhaps ask ourselves, whether the same must not be said of Kierkegaard‘s Abraham.

Having been expelled from paradise, Adam and Eve had to discover that the other side of freedom is rootlessness: freedom lets us lose our place. It is therefore only fitting that Cain, described as a rootless wanderer, should also be said to have built the first city.

This humanly established place is to compensate the free human being for the place that has been lost.

It is interesting to note that we find a parallel to this story in Greek myth: Daedalus, having murdered his gifted nephew in a fit of jealousy, also becomes a restless wanderer and at the same time this builder of the labyrinth is celebrated as the archetypal architect. In both stories pride turns into jealousy, jealousy leads to murder, murder to restless wandering and to architecture, to the city.

One thing I would like to call your special attention to is this: city and freedom belong together: "Stadtluft macht frei," “City air makes free,” said the medievals, where this was understood quite literally: it meant first of all that serfs or peasants who had lived in the city for a year gained their freedom. But the saying has also another, more spiritual significance.

I linked an exaggerated insistence on freedom to what Kierkegaard called a teleological suspension of the ethical. That Eckhart himself was worried about such a suspension is shown by the following passage:

> There are people, who say: "If I have God and God's love, I may do whatever I want to do." They misunderstand this word. As long as you are capable of acting contrary to the will of God and his commandments, the love of God is not in you, however you may deceive the world. The person who stands in God's will and in God's love, takes his pleasure in whatever God loves and refrains from any act contrary to his wishes, finding it impossible to omit what God wants done, and impossible to do something that goes against God. He is like a man whose legs are tied together: just as such a man cannot walk, so it is impossible for a man who lives in God's love to do evil. Someone has said: "Even if God should command me to do evil and shun virtue, still I could not do what is wrong." For no one loves virtue but who is virtuous. The person who has denied himself and all else, who seeks his own advantage in nothing, and

> who loves without assigned reasons, acting solely from loving-kindness, is one who is dead to the world and alive in God and God is alive in him.[120]

How effective is this attempt to distance himself from the heretics? Eckhart insists that we should not think that we can prove our freedom by going against what the law commands. The freedom of the mystic must be something like a gift of grace. He is in a sense reborn. Reborn he gains a sense of innocence, comparable, the brothers of the free spirit thought, to the innocence possessed by Adam and Eve in paradise, who although naked were not ashamed. The recovery of such innocence was very much a claim of the Brothers of the Fee Spirit.

As Norman Cohn points out:

> To be naked and unashamed, like Adam and Eve, they regarded as an essential part of the state of perfection on earth; and they called this 'the state of innocence'… In the Adam-cult the lost Paradise was recreated and at the same time the advent of the Millennium was affirmed. Primitive innocence and blessedness were restored to the world by living gods in whom Creation was felt to have attained its perfection and to be transcended.[121]

The freedom from shame here parallels the freedom from an ought.

3

It is easy to see why such a freedom should bring with it also a lack of respect for private property.

> By the fourteenth century some of them at least had decided that the state of innocence could take no cognizance of the institution of private property. In 1317 the Bishop of Strasbourg commented: 'They believe that all things are in common, whence they conclude that theft is lawful for them.' It was in fact quite normal for an adept to regard all things as

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[120] "Convescens praecepite, ab Ierosolymis ne discrederent, etc." Quint II, 79-80. Blakney, p. 193, Translation changed.

[121] Norman Cohn, The *Pursuit of the Millennium*, 2nd edition (New York: Harper Torchboooks, 1961), p.191. Much of what follows depends on Cohn's account.

> his property. The point was made clearly enough by Johann Hartmann, an adept who was captured at Erfurt… "The truly free man is king and lord of all creatures. All things belong to him, and he has the right to use whatever pleases him. If anyone tries to prevent him, the free man may kill him and take his goods."[122]

We are reminded of Hobbes' first law of nature. In the state of nature the human being is free to do whatever he chooses. But this, as Hobbes recognizes, has to transform the state of nature into a state of war. That is why, according to Hobbes, selfish human beings, to remedy the consequences of their own selfishness, will create that artificial leviathan, the state. The brothers of the free spirit did indeed easily fall back into just such a state of nature, where life becomes indeed, in Hobbes' words, nasty, brutish, and short.

> Cheating, theft, robbery with violence were all justified. John admitted of having committed them all and said that they were normal amongst some two hundred Beghards of his acquaintance.[123]

It is also easy to see how such a belief that every brother and sister of the free spirit had a right to consider all things as his or her property should lead to an understanding of the state of nature as a state where human being hold all things in common. Cohn suggests that it was some time around 1380, in the waning Middle Ages, that people came "to think of a society without distinctions of status or wealth not simply as a Golden Age irrecoverably lost in the distant past, and began to think of it instead as preordained for the immediate future." The state of nature comes to be thought of as a state of equality:

> When Adam delved and Eve span,
> Who was then a gentleman?

Note that the state of nature here is most definitely not thought as paradise. We are accepting the fallen state of humanity. But even, or especially in this fallen state we can distinguish between good and evil, between a just and an unjust society. And thus John Ball preached in England:

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[122] Ibid., p.193.
[123] Ibid., p.194.

> Good folks, things cannot go well in England nor ever shall until all things are in common and there is neither veillein nor noble, but all of us are of one condition.

And was not serfdom simply evil? To be sure, orthodoxy had insisted that the unfair distribution of wealth that we find now here on earth will be eliminated after the last judgment. The just will go to heaven, the unjust, and that includes most of the rich, to hell. But increasingly this consolation was felt to be insufficient. And did Christianity not itself argue for communism? Here is what the early reformer John Wyclif taught:

> Every man ought to be in a state of grace; if he is in a state of grace he is lord of the world and all that it contains; therefore every man ought to be lord of the whole world. But because of the multitudes of men, this will not happen unless they hold all things in common: therefore all things ought to be in common.[124]

This position is criticized in Langland's Piers Plowman:

> Envy heard this; and bade friars go to school,
> And learn Logic and Law, and also Contemplation
> And preach to men of Plato, and prove it by Seneca,
> That all things under heaven ought to be in common.
> He lies, as I live, who to the unlearned so preaches,
> For God made men a law, and Moses taught it:
> Thou shalt not covet anything that is thy neighbor's.

The orthodox position expressed in these lines is not so very far removed from Nietzsche, who taught that egalitarian thinking is born of the spirit of ressentiment, that is to say of envy. Think once more of the stories of Cain and Daedalus. But ever more the gap between rich and poor had to arouse envy and cause the people to consider the privileged and rich as of the devil's party.

Wyclif found his most significant follower in the Bohemian John Hus, an intellectual, who was Rector of the University of Prague, but like Eckhart also someone who could speak to the people, and in addition an important figure at the court. In Prague

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[124] Ibid., p. 212.

he preached, long before Luther, against the sale of indulgences, arguing that when papal decrees ran counter to the law of Christ, they ought to be disobeyed. In 1414 he was summoned to appear before the Council of Constance to defend himself against charges of heresy. Despite the fact that safe conduct had been guaranteed by Emperor Sigismund himself, he was arrested and when he refused to recant burnt as a heretic.

In Bohemia the news of that execution led to a popular revolt. In Prague and many villages the priests were attacked and often driven from their parishes. When King Wenzeslas, pressured by the pope and his brother, the Emperor, reinstated the clergy and filled the Prague town council with anti-Hussites, the people stormed the town hall and threw the new councillors out of the windows. The poor king died from shock, to be succeeded by his anti-Hussite brother, the Emperor, as king of Bohemia. Invading Catholic armies were defeated by the Hussites in one battle after another. The Hussites demanded that the Church be expropriated and that the clergy live a life of apostolic poverty. The also insisted that laymen receive Holy Communion in both kinds, bread and wine, instead of just bread.

Within the Hussite movement a radical wing soon formed, the Taborites, supported by the artisans and the urban poor, but also by the peasants. Nationalist, socialist, and religious motives all played a part, as did immigrants who had been associated with the brotherhood of the free spirit. Meanwhile the Hussite forces under John Zizka successfully fought off the armies of the Emperor. The resulting state of war and chaos were soon interpreted as a sign that the hour had come when a new millennium was about to begin. The Taborites called on the faithful to take on the task of purification themselves. All who did not agree with them were to be exterminated. Massacre was seen as a legitimate way of clearing the way for the millennium. And once again:

> In that realm no sacraments would be needed to ensure salvation; the book learning of the clergy would be revealed as vanity; the Church itself would disappear. There nobody would experience physical want or suffering; women would bear children without pain; sickness and death would be unknown. And there the Saints would live together in a community of love and peace, subject to no law and free form all coercion: denizens of a

> new Paradise which… was also to be a recreation of the egalitarian state of nature.[125]

The "fantasy of an anarcho-communistic State of Nature" here expressed itself in an especially violent movement. To achieve the classless society envisioned, all lords, nobles and knights were to be killed. Private property was to be abolished and with it taxes. Prague with its wealth and luxury and its many Germans in leading positions was seen as a new Babylon. The Taborite revolution was to clean up the mess at home and then conquer the world. And of course the Taborites felt themselves entitled to take whatever those not of their party, especially the rich owned, and soon their expeditions turned into simple robbers' raids.

Within the Taborite movement an even more extreme group formed, the Bohemian Adamites.[126] As Cohn describes them:

> They held that God dwelt in the Saints of the Last Days, that is, in themselves; and that made them superior to Christ, who by dying had shown himself to be merely human. They accordingly dispensed with the Bible, the Creed, and all book-learning, contenting themselves with a prayer which ran: "Our Father who art in us, illumine us, thy will be done....' They maintained that heaven and hell had no existence save in the righteous and unrighteous respectively; and concluded that they, being righteous, would live forever as denizens of the earthly Millennium.[127]

The simplified version of the Lord's Prayer is significant in that it looks for God not to Heaven, but within the self. "Thy will be done" tends to turn thus into "my will be done." And here, too, as the name of the movement suggests, we meet with an extreme eroticism. As Cohn tells us, the sect was "much given to naked ritual dances held around a fire and accompanied by much hymn singing."[128] This was to show that they had indeed recovered the innocence that was Adam and Eve's before the fall.

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[125] Ibid. p. 226.
[126] Ibid., p. 233.
[127] Ibid., p. 233.
[128] Ibid., p. 235

From their stronghold these Adamites, who understood themselves as avenging angels, waged war against the neighboring villages, seizing whatever they could, killing every man, woman, and child whom they could find. The whole thing lasted only a few months of the year 1421. Finally it was the Hussites themselves who had to send out a force to put an end to these Adamites. By 1422 the nobility had come to dominate and to co-opt the Hussite movement, making social revolution no longer an issue. The Taborite movement now became the enemy and in 1434 the Taborite army was almost annihilated by forces of the more conservative main stream of the Bohemian Hussites. In 1452 their stronghold, the town of Tabor, was taken. In this case, too, total military defeat caused the movement to turn inward, transforming what had been an exceedingly violent and militant into a purely religious movement. As such the Taborite tradition has survived until today, as the peaceful Bohemian or Moravian Brethren.

The conditions that led to the explosion in Bohemia also existed elsewhere, especially in southern and central Germany. Here, too, priests were seen more and more as a bunch of exploiters, more interested in worldly possession, in sex and drink than in saving souls. And more and more the messianic kingdom was no longer understood as the Heavenly Jerusalem, but as a return to the egalitarian state of nature. The millennium gets ever more secularized. Cohn illlustrates this transformation with his account of the rise and fall of the drummer of Niklashausen, a shepherd, also a popular entertainer, who, prompted by the local priest who wanted to make the pilgrimage to the Virgin of Niklashausen more popular, claimed to have received a message of utmost importance from the Virgin: the local village of Niklashausen was to become the salvation of the world. Soon the drummer made the customary attacks on the fat cats in the Church. But more and more he spoke as a social revolutionary. The use of wood, water, pasturage, the right to fish and to hunt was to be enjoyed by all. This was a matter the peasants had long griped about. No rent or taxes would be owed to any lord, he taught. Distinctions of status and rank would be abolished. Through all of southern and central Germany spread this message. In 1474 Niklashausen became the focus of many pilgrimages. The drummer is said to have cured the deaf and the blind, even to have raised the dead. Up to 70,000 people are said to have come on a single day. Soon the two larger cities in the area, Nürnberg and Würzburg, became nervous. The Prince-bishop of the nearby

Würzburg decided to have the drummer arrested. The drummer's followers then marched unto the city, expecting its walls to fall like those of Jericho. Nothing of the sort happened. The ill armed would-be rescuers were instead massacred. The drummer of Niklashausen was burned. The church of Niklashausen was later razed to the ground.

4

Noteworthy in all these popular movements is the way a discovery of the freedom of the human spirit, a freedom that could invoke, as I suggested, the authority of St. Paul, who has said that "Where the Spirit of the Lord is, there is freedom," and that finds such powerful expression in the sermons of Meister Eckhart, leads to demands for greater political, and especially economic freedom, freedom especially from the burdens placed on those less well off by the clergy and the nobility, freedom from the self-serving rule of knights and patricians. And it also leads to demands for greater sexual freedom. But noteworthy, too, is the way the hope for revolution is again and again subverted by a thinking that, caught up in millennial fervor, is supported by utopian ideas that had to cause the movement to lose touch with reality, turned it to violence and terror, and doomed it to failure. Medieval Communists

10. The Condemnation

1

There is a sense in which Meister Eckhart's message, addressed as it was to the common folk, should be accessible and belong to us all. By this I also mean to say that you should have no particular difficulty understanding what he is claiming. Here an example from one of his sermons:

> Yesterday as I sat yonder I said something that sounds incredible: "Jerusalem is as near to my soul as this place is." Indeed a point a thousand miles beyond Jerusalem is as near to my soul as my body is, and I am as sure of this as I am of being human, and it is easy to understand for learned priests.[129]

Strange as the claim that Jerusalem is as close to me as my body may seem at first, what allows Eckhart to say this is nonetheless easy to understand. When I think of Jerusalem and Rome, is one city closer to my thinking than the other? Closer in what sense? Is there not a sense in which all objects of thought are equally close to the thinking self? Not only is Jerusalem as close to the thinker as her body is, but so is a place a thousand miles beyond, so indeed is every place. Following Plato, Augustine had thus insisted that the soul knows itself to be a thinking being and as such a spiritual substance essentially different from body and place. How could such a substance, grasped in its essence only in a movement of introversion, be said to be nearer one place than another? Meister Eckhart would seem to be quite in agreement with the philosophical tradition, when he speaks of the soul as exempt from the limitations imposed on us by our embodied existence: no matter how distant some place may be, the soul can leap to it and beyond. Had Plato not already attributed wings to thought?

To be sure, the embodied self will have difficulty identifying with Eckhart's soul. As long as I understand myself concretely, as this individual, I understand myself as cast into the world, subject to place and time. Thus placed, I also know that my vision and

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[129] *Meister Eckharts Predigten,* ed. and trans. Josef Quint, 3 vols. (Stuttgart: Kohlhammer, 1936-1976), "Adolescens, tibi dico: surge!" 2: 305. *Meister Eckhart*, trans. Raymond B. Blakney (New York: Harper, 1957), p. 134. Translation changed.

understanding remain bound by perspective. Only to disembodied thought, only to a pure "I," would all things be equally close. I cannot recognize myself in that "I." To be sure, whenever I seize some truth I transcend myself as thus bound. In this sense Eckhart maintains that to the soul all things are equally close. And nothing can limit the reach of the soul, for in thinking such limits I am already beyond them. As that song re-appropriated by Pete Seeger would have it: thoughts are free, and such freedom knows no limits.

And if the soul cannot be located in space, can it be located in time? Is there not a sense in which events that happened ten years ago may be as close to you as what happened only yesterday? And so Eckhart continues:

> My soul is as young as the day it was created; yes, and much younger. I tell you, I should be ashamed if it were not younger tomorrow than it is today.[130]

Temporal predicates no more fit Eckhart's soul than do spatial predicates.

But what then does Eckhart mean when he tells his listeners that he "should be ashamed" if his soul "were not younger tomorrow than it is today." Obviously the word "young" has changed its usual meaning. When we say of someone that he is young we mean that not much time has passed since he was born. Eckhart means by "young" proximity to one's origin, where this origin is no longer thought as a temporal beginning, but more essentially, as an ontological ground. To say that I should be ashamed if my soul were not younger tomorrow than it is today, is to say that I should be ashamed if my soul had not come closer to that reality which is its origin and true home. It is possible to read this as an appropriation of the Platonic understanding of the philosopher as a practitioner of the art of dying: had Plato not already insisted that the soul's being is not like that of things in space and time, that it belongs rather with the forms, sharing the same home, an intelligible world beyond time and space? Must its homecoming then not be understood as a leave-taking from the world?

But, to return to the statement that Jerusalem is as close to me as my body is: Eckhart knows of course that I do not possess eyes with which I could now actually see

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[130] "Adolescens, tibi dico: surge!" Quint, 2: 305; Blakney trans. 134.

either the earthly or the Heavenly Jerusalem. Although I can conceive or imagine it, I do not actually see it. Such conceptions or imaginings cannot give me information concerning how the city actually looks. Only to the disembodied soul are all things equally close; only it invites the figure of the infinite sphere. But the possibility of a self-elevation reaching for what this figure names haunts human beings: can I not turn inward, forsake the world of the senses and whatever binds me to it, transcend this desiring, embodied self in thought?

To show once more why the Church had reason to be concerned let me turn to a passage from yet another sermon:

> To walk through the fields and say your prayers, and see God, or to sit in a church and recognize him, and to know God better because the place is peaceful: this is due to man's defective nature and not to God. For God is equally near to everything and every place and is equally ready to give himself, so far as in him lies, and therefore a person shall know him aright who knows how to see him the same, under all circumstances.[131]

As long as we think of God as closer to one thing than to another we have not understood his essence. It does not really matter whether you find God in a church or on some field. The Church as an institution here appears only to obscure what really matters. Small wonder that that institution should have wanted to silence Eckhart.

2

With this let me turn to the Condemnation itself. I shall return to it once more in our last session on Eckhart. The Papal bull "In agro dominico" begins with a statement of the task at hand:

> In the field of the Lord over which we, though unworthy, are guardians and laborers by heavenly dispensation, we ought to exercise spiritual care so watchfully and prudently that if an enemy should sow tares over the seeds of truth (Mt. 13:38), they may be choked at the start before they grow up as weeds of an evil growth. Thus with the destruction of the evil seed and the

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[131] Ibid.

> uprooting of the thorns of error the good crop of Catholic truth may take firm root.[132]

The reference is to the parable of the weeds in the field. Here is the explanation Jesus gave of that parable: "He who sows the good seeds is the Son of man: the field is the world, the good seed means the sons of the kingdom; the weeds are the sons of the evil one, and the enemy who sowed them is the devil; the harvest is the close of the age, and the reapers are angels." (Matthew 13:37) Meister Eckhart is associated by the bull with the devil's party:

> We are indeed sad to report that in these days someone by the name of Eckhart from Germany, a doctor of sacred theology (as is said) and a professor of the order of Preachers, wished to know more than he should, and not in accordance with sobriety and the measures of faith, because he turned his ear from the truth and followed fables.

We human beings should be content with knowledge that is in accord with "the measures of faith" and not desire more. The learned Eckhart, perhaps misled by what he heard in Paris and mislead by the Arab interpreters of Aristotle, demanded more and like Adam before him listened to the devil.

> The man was led astray by the Father of Lies who often turns himself into an angel of light in order to replace the light of truth with a dark and gloomy cloud of the senses, and he sowed thorns and obstacles contrary to the very clear truth of faith in the field of the Church and worked to produce harmful thistles and poisonous thornbushes. He presented many things as dogma that were designed to cloud the true faith of the hearts of many, things which he put forth especially before the uneducated crowd in his sermons and that he also admitted into his writings.[133]

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[132] Meister Eckhart, *The Essential Sermons, Commentaries, Treatises, and Defense,* trans. and intro. Edmund Colledge and Bernard McGuinn (New York: Paulist Press, 1981), p. 77.
[133] Ibid.

Nothing here is surprising. Although we should perhaps ask ourselves: how did the devil, if it was indeed the devil, present himself to Meister Eckhart? Was it the devil who, demanded freedom of thought?

What follows is a list of articles. I shall return to articles 4-19 in our final session on Eckhart and here confine myself to taking a brief look at the others. The first three challenge the Christian creation account. They are taken from Eckhart's *Commentaries on Genesis*.

> The first article: When someone asked him why God had not created the world earlier, he answered then, as he does now, God could not have created the world earlier, because a thing cannot act before it exists, and as soon as God existed he created the world.[134]

What would it mean for God to have created the world earlier? Note that the question looks different when we look at it in terms of our finite perspective and try to think it from a divine perspective. That also holds for the next two propositions.

> The second article. Also, it can be granted that the world has existed from eternity.

Eckhart here appears to agree with Aristotle and his Arab commentators.

> The third article. Also, in the one and the same time when God was, when he begot his coeternal Son as God equal to himself in all things, he also created the world.[135]

The articles and their condemnation raise the question: Is God closer to any point in time than to any other? Such questioning leads us into the neighborhood of Nietzsche's doctrine of the eternal recurrence and there is indeed quite a bit in Eckhart that invites us to think of Nietzsche.[136] But let Eckhart speak for himself and let us turn to the *Commentaries on Genesis*.

> Again, in the third place, the "beginning" in which "God created heaven and earth" is the first simple now of eternity. I say it is the very

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[134] Ibid., pp, 77-78.
[135] Ibid, p., 78.
[136] See Georges Poulet, *The Metamorphoses of the Circle*, trans. Carley Dawson and Elliott Coleman in collaboration with the author. (Baltimore: Johns Hopkins Press, 1967)

> same now in which God exists from eternity, in which also the emanation of the divine Persons eternally is, was, and shall be. Moses said that God created heaven and earth in the very first beginning in which he himself exists, without any medium or time interval. So when someone once asked me why God had not created the world earlier, I answered that he could not because he did not exist. He did not exist before the world did. Furthermore, how could he have created earlier when he had already created the world in the very now in which he was God. It is false to picture God as if he were waiting around for some future moment in which to create the world. In the one and the same time in which he was God and in which he begot his coeternal Son as God equal to himself in all things, he also created the world. "God speaks once and for all" (Jb 22:14). "God speaks in begetting the Son because the Son is the Word; he speaks in creating creatures, "He spoke and they were made, he commanded and they were created" (Ps. 32:9). This is why it says in another Psalm, "God has spoken once and for all and I have heard two things (Ps. 61:12). The "two things" are heaven and earth, or rather "these two," that is the emanation of the Persons and the creation of the world, but "he speaks" them both "once and for all"; "he has spoken once and for all." So much for the first of the premises.[137]

Everything depends here on understanding the key terms. As Eckhart had said in the very beginning:

> Four preliminary points about this text must be discussed. First. What this "beginning" [principle] is in which God is said to have created heaven and earth.[138]

In answering this question Eckhart turns to the beginning of the Gospel of John.

In the Defense Eckhart had this to say in his behalf:

> 8. As for the eighth, when it says: "The beginning in which God created heaven and earth is the first simple Now of eternity," it must be admitted

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[137] Meister Eckhart, *The Essential Sermons,* pp. 84-85,
[138] Ibid., p. 83.

> that this is true and necessary as it stands. Creation indeed and every activity of God is the very essence of God, and yet it does not follow from this, that if God created the world from eternity, this world is therefore from eternity as the uneducated think. For creation is not an eternal state, just as the thing created is not eternal.[139]

This invites us to distinguish two perspectives: the divine, which knows no before and after, and our creaturely perspective, which can admit that the world was not from eternity.

3

I shall pass over 4 – 15 for the time being and return to them in our last session on Eckhart, which will return to the implications of his thought for ethics. Propositions 16 through 26, were found questionable, evil sounding, and suspect of heresy, even if with considerable mental gymnastics they might be shown to be compatible with Church's teachings.

16-19 all concern Eckhart's devaluation of exterior acts and his emphasis on an inward turn. These, too, have a direct bearing on what we can call Eckhart's ethics and I shall return to them in our last session.

20-22 seem to assert the identity of the good man and Christ.

> The twentieth article. That the good man is the Only-Begotten Son of God.
>
> The twenty-first article. The noble man is that Only-Begotten Son of God whom the Father generates from all eternity.
>
> The twenty-second article. The Father gives birth to me his Son and the same Son. Everything that God performs is one: therefore he gives me, his Son, birth without any distinction.[140]

We should note the way the charge that these propositions are heretical is met by Huston Smith in his Introduction.

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[139] *Meister Eckhart*, trans. Raymond B. Blakney (New York: Harper, 1957), p. 266.
[140] Meister Eckhart, *The Essential Sermons,* p. 79.

> In the defense of what became article 21 of the bull, (The noble man is that Only-Begotten Son of God whom the Father generates from all eternity) the gap in understanding is even more evident, because the theological commission's response to the Meister's explanation deliberately reverses what Eckhart intended. They rebutted him with the observation: "That does nothing to prove the article, namely that the good man insofar as he is a man can be said to be the Only-Begotten Son of God eternally born to the Father. But the good man insofar as he is a man is exactly what Eckhart did not intend by his use of in quantum language; rather he always employed this language to speak of the good man insofar as he is good, not the existent subject in the world, which is a compound of identity and difference. Eckhart's formula reduplicates the formal quality to show that in its principal ground the soul is truly one with its divine source. By transferring the reduplicating formula to the concrete subject, Eckhart's investigators were able to convert him into a seeming pantheist by misunderstanding his language and intentions.[141]

Consider Eckhart's own attempt to clarify his intentions:

> To clarify the objections brought against me, three things must be kept in mind. The first is that the words "insofar as," that is a reduplication, exclude from the term in question everything that is other or foreign to it, even according to reason. Even though existence and understanding are the same in God, still we do not say that God is evil, although we can say that he understands evil. Although in God the Father essence and paternity are the same, he does not generate insofar as he is essence, but insofar as he is Father, even though the essence is the root of generation. Even the absolute acts of the Godhead proceed from God according to the property of his attributes, as a theological maxim says.[142]

But there is a difficulty here. Consider once more

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[141] Ibid., p. 54.
[142] Ibid., p. 72.

> Although in God the Father essence and paternity are the same, he does not generate insofar as he is essence, but insofar as he is Father, even though the essence is the root of generation.

Identity and difference here are joined in a way that has to leave our understanding behind. And consider now this passage from the Defense:

> The second [thing to be kept in mind] is that the good man and goodness are one. The good man insofar as he is good signifies goodness alone, just as something white signifies only the quality of whiteness. These two things, being good and goodness are univocally one in the Father, Son, and Holy Spirit. They are analogically one in God and in us considered as good. (73 – 3)

The footnote refers you to the book of Benedictus.

> Understand too what I have just said, that a good man, a son of God born in God, loves God for himself and in himself, and much else that I have already said. To understand it better one should know, as I have often said, that a good man, born of goodness and in God, enters into all the attributes of the divine nature. Now it is one attribute of God, according to the words of Solomon, that he forms all things for his own sake (Pr. 16:4), that is, that he does not look around outside himself for any reason other than himself; he loves and performs all things for his own sake. Therefore, if a man loves him and all things and performs all his works not for reward or honor or ease, but for God's sake and for his glory alone, that is a sign that he is God's Son.[143]

It is not difficult to understand why such a text might be found questionable, evil sounding, and suspect of heresy, even if ingenious interpretation may be able to show it to be compatible with Church's teachings.

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[143] Ibid., p. 228.

4

Propositions 23 to 25 focus on God's unity.

> The twenty-third article. God is one in all ways and according to every respect so that he cannot find any multiplicity in himself either in intellect or in reality. Anyone who beholds the number two or who beholds distinction does not behold God, for God is one, outside and beyond number, and is not counted with anything. There follows: No distinction can exist or be understood in God himself.[144]

The Oneness of God is emphasized here in a way that seems to deny the Trinity. Once again the Introduction is concerned to save Eckhart's orthodoxy. Consider the explanation given on p. 36:

> Such texts provided the grounds for the suspicions of Eckhart's judges and many later interpreters concerning the validity of his doctrine of God from the standpoint of Christian Trinitarianism. In order to be fair to Eckhart, though, we must also avert to another series of texts. In the Meister's writings there is no lack of passages that stress the absolute identity of the three Persons with the divine essence; there are also texts that seem to hint at, if not to develop fully, a dialectical relationship between the indistinct divine ground and the relational distinction of the Persons of the Father, Son, and Holy Spirit. Thus in Sermon 10: "Distinctions come from the Absolute Unity, that is the distinction in the Trinity. Absolute Unity is the distinction and distinction is the Unity. The greater the distinction, the greater the Unity, for that is the distinction without distinction." Eckhart seems to be asserting that the God beyond God, the hidden ground of the Trinity, is the more indistinct insofar as he is distinct, the more one insofar as he is three.[145]

The following condemned articles raise similar questions.

> The twenty-fourth article. Every distinction is foreign to God, both in nature and in Persons. The proof is that the nature itself is one and this

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[144] Ibid., p. 79.
[145] Ibid., pp, 36-37.

> one thing, and each Person is one and that same one thing that the nature is.
>
> The twenty-fifth article. When it says, "Simon, do you love me more than these men? (Jn. 21:15 sqq), it means, that is, more than these others — and indeed well, but not perfectly. In the case of what is more and less there is an order and a degree, but there is not order and degree in the One. Therefore, whoever loves God more than his neighbor loves well, but not perfectly.[146]

To love perfectly, is to make no distinctions between what one loves. The implication is once again that teleological suspension of the ethical of which I spoke before.

5

Proposition 26 declares that creatures are nothing.

> The twenty-sixth article. All creatures are one pure nothing.
>
> I do not say that they are a little something or anything, but that they are pure nothing.[147]

The introduction calls attention to the fact that in Eckhart you will also find passages where God is said to be nothing. At issue is the question: what does it mean for God and things to be. Both cannot be said "to be" in the same sense. The word has to be understood analogically. But Eckhart's formulations open up an infinite abyss between God and creatures that threatens to rob analogy of its meaning. If creatures can be said to be, God is not, if God is said to be, creatures are not. Why then attribute being at all to both God and things? Because in Him we discover the ground of things, the ground of their being, the ground also of our being. Thomas Aquinas might have said, God is said "to be" by us by an analogy of proportion, Cajetan, much later, by an analogy of attribution. What sort of analogy is that?

A standard example in medieval texts is urine, which is said to be healthy by some doctor. Literally, of course, urine is not the sort of thing that can be sick or healthy. It is said to be healthy because it is a sign of health. That is to say, to really understand

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[146] Ibid., pp. 79-80.
[147] Ibid., p. 80.

such an analogy we have to understand the relation involved. But in this case there is no definite relation. What do we mean when we call God the ground of our being? We are confronted with an abyss. The analogy of attribution has been stretched in this case to the point that it becomes impossible for us to say what it means to say in more proper language.

6

Of special interest are the two condemned articles that refer us to claims Eckhart is supposed to have made in his sermons.

> The first article. There is something in the soul that is uncreated and not capable of creation; if the whole soul were such, it would be uncreated and not capable of creation, and this is the intellect.

This recalls Averroes. Once again the Introduction tries to defend Eckhart. But Eckhart would not seem to be interested first of all in theological or philosophical theorizing and its fine distinctions, but attempts to give voice to an experience of self-transcendence that must have made him a sympathetic reader of a thinker such as Averroes.

> The second article. That God is neither good, nor better, nor best; hence I speak as incorrectly when I call God good as if I were to call white black.[148] (80)

What I said above about 26 applies here too. At issue is our inability to say anything that really captures the being of God. Whatever we say is literally false. Eckhart here stands in the tradition of negative theology or the *via negativa*. But he also thinks we can have an experience of God.

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[148] Ibid., p. 80.

11. Modes of Knowing

1

Let me begin by returning to that power of self-transcendence that, I suggested, is presupposed by the pursuit of objectivity that rules the new science, even as it allows for the kind of mysticism represented by Meister Eckhart. Both are branches from the same root. The soul, Eckhart insists, as Aristotle and his Arab commentators recognized, is not imprisoned in the body. Nor is it limited to its point of view, its perspective. In so far as we are finite creatures, bound to a particular place in space and time, our understanding, too, is finite and bound to particular perspectives. But we are more than finite creatures. We possess a spirit that is capable of reaching up to the infinite. Within himself the human being discovers thus the infinite, where thoughts of this infinity merge with thoughts of the infinity of God, not to be sure, god as creatures conceive him, but God as he is in Himself.

The human being is given here a twofold being. This is suggested by locutions such as: the human being has left, or has fallen from his infinite origin, or his infinite freedom, into space, into time, into the finite. Or you may want to say, spirit has descended into matter. You will recall that something of the sort was held also by Avicenna and Averroes, as it was by Plato and Aristotle.

But this fall or descent does not mean that this origin has been covered up altogether. It is experienced as a reality we remember and that beckons the human being to transcend himself as a merely finite being. We could perhaps say that the human being is by its very nature a finite creature called by the infinite. That suggests that we can distinguish in the human being two very different modes of knowledge: one that belongs to us in so far as we are creatures; the other in so far as we transcend ourselves as creatures and reach up to the infinite. One is directed outward, the other inward. That distinction is indeed a recurrent theme in Meister Eckhart, as it is in countless Christian thinkers. Augustine, for example, distinguishes between *curiositas* and *memoria*, between curiosity and remembrance, the former extroverted, turned to the many things of the world, constantly turning from one to another, the latter introverted, turned to the very ground of our intellectual being. And this distinction looks back to Plato or to Plato's

Socrates, who in the *Phaedo* describes how he turned away from the study of nature, which presupposes a kind of extroversion, to attend to his soul.

2

Let me return to the sermon where Eckhart writes that Jerusalem is as near to his soul as is his body and states that he should be ashamed if his soul were not younger tomorrow than it is today. The paragraph following the one I read you last time reads as follows:

> The soul has two agents which are not connected with the body and these are *intelligence* and *will* — agents which function apart from time. Oh — if only my soul's eyes were opened so that it might see the truth! Believe me, it would then be as easy for one to give up everything as it would be to give up peas and lentils. Yes — by my soul — the world of things would be as nothing to such a person.[149]

Eckhart draws thus a distinction between faculties tied to the body and faculties independent of the body and thus also of time. He names two such higher faculties: intelligence and will. Both presuppose that power of self-transcendence of which I have been speaking. To be free is to transcend oneself as what one is; only because of this can I oppose to what I am what I might be, project myself into a boundless space of possibilities. The power of self-transcendence is inseparable from our humanity. Descartes linked our freedom to infinity. Heidegger was to speak of the ecstatic nature of human being. The term suggests the ecstasies of the mystic. Eckhart is indeed the only thinker, to the best of my knowledge, about whom Heidegger has only positive things to say, calling him the great *Lehr- und Lebemeister*, the great teacher, also of how to live. That power of transcendence makes possible also an inward turn, where the will wills a withdrawal from the world and a return to its own self.

The distinction between two modes of knowing returns again and again in Eckhart's sermons: Consider this passage from sermon No. 1:

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[149] "Adolescens, tibi dico: surge!" Quint, 2: 305; Blakney trans.p. 134.

> Whatever the soul does it does through agents. It understands by means of intelligence. If it remembers, it does so by means of memory. If it is to love, the will must be used and thus it acts always through agents and not within its own essence. The power of sight can be effective only through the eyes, for otherwise the soul has no means of vision. It is the same with the other senses. They are effectuated only through intermediaries. [The soul here invites comparison with the Aristotelian God, who also depends on intermediaries to become effective (KH)]
>
> In Being, however, there is no action and, therefore, there is none in the soul's essence. The soul's agents, by which it acts, are derived from the core of the soul. In that core there is the central silence, the pure peace, and abode of the heavenly birth, the place for this event: the utterance of God's word.[150]

Eckhart thus makes a distinction between a mediated and an unmediated vision. First of all and most of the time our vision is mediated, and here Eckhart does not hesitate to invoke the language of Platonic and Aristotelian philosophy (see especially *Timaeus* 61-65):

> When the agents of the soul contact creatures, they take and make ideas and likenesses of them and bear them back again into the self. It is by means of these ideas that the soul knows about external creatures. Creatures cannot approach the soul except in this way and the soul cannot get at creatures, except, on its own initiative, it first conceives ideas of them. Thus the soul gets at things by means of ideas and the idea is an entity created by the soul's agents. Be it a stone, or a rose, or a person, or whatever it is to be known, first an idea is taken and then absorbed and in this way the soul connects with the phenomenal world.[151]

Eckhart thus thinks of our knowledge of things as a matter of first taking and making, and then appropriating ideas of things. He does not have anything to say here about how we are to understand this taking and making, but the phrase seems profoundly right. We

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[150] Blakney, pp. 96 - 97
[151] Blakney, p. 97.

cannot get by with a philosophy that would emphasize only the making. Our making must be in response to what we experience, taken from it.

But what matters here is something else: mediated as it is by what the soul has created, whatever we know never gets at things as they are in themselves. Our knowledge of things is never more than a knowledge of appearances. The phenomenal world, in its entirety, is a world of appearances, subject to our human mode of knowing.

> But an idea, so received, necessarily comes in from outside, through the senses. Thus the soul knows about everything but itself. There is an authority who says that the soul can neither conceive nor admit any idea of itself. Thus it knows about everything else but has no self-knowledge, for ideas always enter through the senses and therefore the soul can get no idea of itself. Of nothing does the soul know so little as of itself, for lack of means. And that indicates that within itself the soul is free, innocent of all instrumentalities and ideas, and that is why God can unite with it, he, too, being pure and without idea or likeness.[152]

What we call knowledge presupposes ideas. But such ideas, Eckhart insists, always come from experience. Given our normal mode of understanding, the soul must be considered not anything: nothing. The absence of any definite content is inseparable from the soul's freedom. And yet, if the soul is in a sense nothing, it is yet also true that without this nothing there could be no knowledge. As especially Heidegger and Sartre were to insist much later, this nothing is implicit in all understanding, all knowledge. It would seem that the road to mysticism, at least to the kind of mysticism represented by Meister Eckhart, is open to human beings just in so far as they are human beings. The key movement is a movement of introversion, a return to what Eckhart calls the soul's central silence. The call of that silence may be likened to what Heidegger calls the call of conscience, where Eckhart, in the passage I just read you, understands that silence as one that prepares one for the advent of God's word, where this divine word, too, has to be a silent discourse. That it will be difficult to separate these two silences, the silence of the

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[152] Blakney, p. 97

soul and the silence of the divine advent, that these two silences should tend to fuse, is to be expected.

3

This understanding of two modes of understanding leads Eckhart close to what was to become Nicolaus Cusanus' doctrine of learned ignorance. Consider this passage, still from Sermon 1:

> For all the truth the authorities ever learned by their own intelligence and understanding, or ever shall learn up to the last of days, they never got the least part of the knowledge that is in the core [of the soul]. Let it be called ignorance or want of knowledge, still it has more in it than all wisdom and all knowledge without it, for this outward ignorance lures and draws you away from things you know about and even from yourself. That is what Christ meant when he said: "Whosoever forsaketh not himself and mother and father and all that is external is not worthy of me."[153]

"Yourself" here means here of course the worldly self.

In the next sermon this doctrine of learned ignorance becomes more explicit:

> But you may be saying: "Sir, you make our salvation depend entirely on ignorance. That sounds wrong. God made man so that he should know, as the prophet says: 'Lord, make them to know!' Where there is ignorance there is error and vanity. The ignorant person is brutal. He is an ass and a fool, as long as he remains ignorant." And that is true. But one must achieve this unselfconsciousness by means of transformed knowledge. This ignorance does not come from a lack of knowledge but it is rather from knowledge that one may achieve this ignorance. Then we shall be informed by the divine unconsciousness and in that our ignorance will be ennobled and adorned with supernatural knowledge. It is by reason of this fact that we are made perfect by what happens to us (*in liddene*) rather than by what we do.[154]

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[153] Blakney, p. 102.
[154] Blakney, p. 107.

The main point is obvious enough: again there is the thought that by becoming learned about our ignorance we shall prepare that place in the soul which allows for the advent of the divine. To give some account of this advent of the divine Eckhart in places uses the language of Aristotelian psychology: Consider the following passage from Sermon 3:

> We have already mentioned the passive and active intellects. The active intellect abstracts ideas from external things and strips them of all that is material and accidental and passes them on to the passive intellect, thus begetting their spiritual counterparts there. So the passive intellect is made pregnant by the active and it knows and cherishes these things. Nevertheless, it cannot continue to know them without the active intellect's continuing, renewing enlightenment. But notice this: all the active intellect does for the natural man, God does and much more too for the solitary person. He removes the active intellect and puts himself in its place and takes over its complete function.[155]

In the mystic experience the mind ceases to be active. It is quieted and becomes, so to speak, a clear mirror. This mirror then reflects God's light. And yet, it should also be clear that such an account is too obviously metaphorical, too obviously tied to creature knowledge, to be taken too seriously. Important is that the mystic experience, as Eckhart understands it, is not a narcissistic withdrawal into one's own self, but implies a radical openness.

4

Cusanus will later insist on the obvious point that between the finite and the infinite there is no proportion. But God is infinite. That is to say that an understanding that remains tied to the finite can never reach God. This is already Eckhart's view (Sermon 4):

> Thus it is true that you cannot know God by means of any creature science nor by means of your own wisdom. If you are to know God divinely, your

[155] Blakney, p. 112.

> own knowledge must become as pure ignorance, in which you forget yourself and every other creature.[156]

Elsewhere the idea of creature knowledge or creature science is tied to a knowledge of this and that. Thus theologians have tried to speak of God by seeing him in the image of familiar creatures (sermon 11):

> It is natural to teach — and yet, it seems to me unsuitable — that man must demonstrate God by this or that analogy. For after all, God is neither this nor that and nothing satisfies him but withdrawal into the innermost core of his own being, the kernel of his Fatherhood, where he has dwelt through all eternity within himself, functioning only as a Father, and finding companionship within his own unique unity.[157]

A little bit later Eckhart continues:

> I have been thinking tonight that each analogy [of things spiritual] is like an outer gate. I cannot see anything unless it bears some likeness to myself, nor can I understand anything unless it is analogous to me.[158]

We know things, and even God in the image of things with which we are familiar and first of all in our own image. But such an understanding cannot do justice to the being of God. The task is to understand the human being in the image of God, not the reverse. But do we have, can we have an image of a God, who is neither this nor that and whom nothing satisfies but "withdrawal into the innermost core of his own being, the kernel of his Fatherhood"? And if not, do we not remain stuck with appearances?

> God has hidden [the essence of] all things within himself. They are not [as they seem to be] this and that, individually distinct, but rather they are one with [his] unity.[159]

First of all and most of the time we exist having dispersed ourselves in the world, doing many things, knowing many things. I mentioned Augustine's distinction between *curiositas,* which scatters the self, and *memoria*, which lets the soul return to itself.

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[156] Blakney p. 119.
[157] Blakney, pp. 147-148.
[158] Blakney, p. 148.
[159] Blakney, p. 148.

Eckhart's views are related, if more radical. The place of *curiositas* is taken by our everyday concern with this and that. As opposed to this, he would recall us to that central unity, which is the origin of our being. Eckhart thus teaches in sermon 17:

> I say humanity and persons are not the same thing.[160]

The distinction being drawn here is not between the universal and the particular, but between the essential humanity within each one of us and our usual mode of being.

> Essentially, humanity ranks so high that, at its best, it is like angelic Being and is related to the Godhead. The ultimate union that Christ had with his Father is something to which I am eligible — if I can put off "this and that" and be human. Whatever therefore, God gave to his on*ly* begotten Son, he will give to me in equal measure and not less.[161]

As we shall see, that sort of statement the Condemnation will find especially objectionable.

The difference between these two modes of knowing can also be understood as a difference between an understanding of what something is, this and not that, and another understanding that does not ask for *what* something is, but simply opens itself to the mystery *that* it is, to its mysterious presence, to the mystery of its being. Consider this passage from Sermon 16:

> The least one knows of God, for example, to see a flower get its Being from him, is more perfect knowledge than any other. To know the least of creatures as one of God's Beings, is better than knowing an angel.[162]

A dung-heap can become an epiphany of the divine.

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[160] Blakney, 176.
[161] Blakney, 176.
[162] Blakney, 171.

12. Anarchic Mysticism

1

The distinction between two modes of knowing we considered last time is echoed by the distinction Eckhart often draws between god and God, between God and the Godhead, the essential God beyond God, a distinction to which I will now turn, with special emphasis on the consequences for ethics of Eckhart's privileging of the Godhead:

Already in Sermon 1 (Blakney) we read:

> It was to this point that Dionysius instructed his disciple Timothy saying: "My dear son Timothy, you should soar above self with untroubled mind, above all your faculties, characteristics, and states, up into the still, secret darkness, so that you may come to know the unknown God above all gods. Forsake everything. God despises ideas.[163]

Here the contrast is between the unknown God and all gods, the former despising all ideas. The following statement from Sermon 23 is more radical:

> Man's last and highest parting occurs when, for God's sake, he takes leave of god. St. Paul took leave of god for God's sake and he gave up all that he might get from god, as well as all that he might give, together with every idea of god. In parting with these he parted with god for God's sake and yet God remained to him as God is in his own nature — not as he is conceived by anyone to be — nor yet as something to be achieved — but more as an "is-ness" (*isticheit*), as God really is.[164]

God as He is in His own nature is here opposed to god as he is thought of by us humans, as another being, if one thought to be perfect, omnipotent, all knowing.

Let me read you one more such passage:

> God *becomes* as phenomena express him. When I existed in the core, the soil, the river, the source of the Godhead, no one asked me where I was

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[163] *Meister Eckhart*, ed. and trans. Raymond Bernard Blakney (New York: Harper Torchbooks, 1957), p. 100.

[164] Blakney, p. 204.

> going or what I was doing. There was no one there to ask me, but the moment I emerged, the world of creatures began to shout: God. If someone were to ask me: "Brother Eckhart, when did you leave home?" that would indicate that I must have been at home sometime. I was there just now. Thus creatures speak of God. But why do they not mention the Godhead? Because there is only unity in the Godhead and there is nothing to talk about. God acts, the Godhead does not. It has nothing to do and there is nothing going on in it. It is never on the lookout for something to do. The difference between God and Godhead is the difference between action and nonaction.[165]

Again we have the difference between two modes of knowing, which appears now as the ontological difference between the one and the many. The one is the origin of the many, but this is not to be thought as if the one were one thing that originated the many, rather the one is present in the many things of the world as the mystery of their being. Perhaps an analogy may help a bit. Think of the number sequence. One is a member of that sequence. But in another sense one is constitutive of every member of that series.

Eckhart continues:

> When I return to God, I shall be without form and thus my reentry will be far more exalted than my setting out. I alone lift creatures out of their separate principles into my own, so that in me they are one. When I return to the core, the soil, the river, the source which is the Godhead, no one will ask me whence I came or where I have been. No one will have missed me — for even God passes away.
>
> If anyone has understood this sermon I wish him well! If no one had come to listen, I should have had to preach it to the offering box.[166]

The passage begins by contrasting death and birth. The former is said to be more exalted. As I came into being, so did the world of creatures which in my awareness of things I gather into one. When I return to my source all distinctions will disappear. We should

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[165] Blakney, 226.
[166] Blakney, 226.

ask ourselves: just what such a return could possibly mean? The question points to the heart of the mystical experience.

2

I have pointed out that the mystical movement that these passages hint at is related to and entails something like what Kierkegaard called a movement of infinite resignation, which invites comparison with what Eckhart calls detachment, *Gelassenheit,* which also becomes a key word in Heidegger. (Cf. *Der Feldweg*, *The Field-Path*) It also invites comparison with Kant's understanding of our experience of the beautiful as altogether disinterested. And as Kierkegaard also points out, such a movement of infinite resignation, and something similar can be said of a disinterested appreciation of the beautiful, leads to what Kierkegaard called a teleological suspension of the ethical. And it was just such a suspension that the authorities feared. Consider this passage from Sermon 5b:

> If anyone went on for a thousand years asking of life: "Why are you living?" life, if it could answer, would only say": "I live so that I may live." That is because life lives out of its own ground and springs from its own source, and so it lives without asking why it is itself living. If anyone asked a truthful man who works out of his own ground" "Why are you performing your works?" and if he were to give a straight answer, he would only say, "I work so that I may work."[167]

To live well, Eckhart seems to be telling us, we should not ask for the point of life, for justifications of it, but simply open ourselves to and accept the mystery of life. Once again this sounds a lot like a Nietzschean *amor fati*.

And the same would be said about the actions that make up our life. They will be done spontaneously, from the heart. Such a person will not act the way he does because there is some commandment or law, he will follow his heart and for the sake of his heart suspend the claims the world makes on him. Freedom here becomes spontaneity.

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[167] Meister Eckhart, *The Essential Sermons, Commentaries, Treatises, and Defense*, trans. and int. Edmund Colledge and Bernard McGinn (Mahwah: Paulist Press, 1981), p. 184

This view of the genuine person may and probably did suggest to some of Eckhart's followers that one way of proving oneself such a genuine person would be to violate the established order. Mysticism here invites a political and a moral anarchism. That Eckhart himself was worried about this possibility is suggested by a passage in Sermon 21, which I read you once before and which bears the significant title, "The will is free."

> There are people, who say: "If I have God and God's love, I may do whatever I want to do." They are wrong. As long as you are capable of acting contrary to the will of God, the love of God is not in you, however you may deceive the world. The person who lives in God's love and by God's will take his pleasure in whatever God prefers and refrains from any act contrary to his wishes, finding it impossible to omit what God wants, and impossible to go contrary to him. It is like a man whose legs are tied together. He cannot walk. It is just as impossible for a man who lives in God's love to do evil. Someone has said: "Even if God should command me to do evil and shun virtue, still I could not do what is wrong." For no one loves virtue but who is virtuous. The person who had denied himself and all else, who seeks his own advantage in nothing, and who loves without assigned reasons, acting solely from loving-kindness, is one who is dead to the world and alive in God and God is alive in him.[168]

The God who might command me to do evil is not that God in whom the virtuous person should be alive. Nor would it be the God who commands me to do good. The truly good life is here the life that is lived in such a way that the individual feels that he or she has no choice between good and evil. She could not act other than she does. In such a life there is no tension between how one lives and how one ought to live. Such a person would no longer experience the tension between inclination and duty, would not be moral in Kant's sense at all.

When Eckhart speaks of someone who is virtuous, he clearly is thinking of someone who is living what we would consider a saintly life. But could one not imagine

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[168] Blakney, p. 193.

someone who experienced no tension between inclination and duty, but was committing acts we would consider profoundly evil? Or would such a person inevitably have something like a bad conscience? The problem with Eckhart's mysticism is that that it makes it difficult to use the idea of God as the measure of our human being. God here is experienced as ground, or core, but not as measure. And certainly not as a personal savior.

This invites us to distinguish three different conceptions of God and to ask how they are related: God as ground of our being and indeed the being of all things (God the Father); God the author of the law and indeed of all order (God as the Son or the Word, the *Logos*); God as the source of salvation, of grace (Holy Spirit). You could relate these conceptions to the three persons of the Trinity, where orthodoxy would insist that all three are one. Such insistence is profoundly optimistic in that it suggests a deep harmony between the way things are and what we most deeply desire.

3

But can Eckhart's mysticism be squared with the traditional understanding of the Trinity. Consider Sermon 5b

> Where the creature stops, there God begins to be. Now God wants no more from you than that you should in creaturely fashion go out of yourself, and let God be God in you. The smallest creaturely image that ever forms in you is as great as God is great? Why? Because it comes between you and the whole of God. As soon as the image comes in, God and all his divinity have to give way. But as the image goes out, God goes in. God wants you to go out of yourself in creaturely fashion as much as if all his blessedness consisted in it. O my dear man, what harm does it do you to allow God to be God in you? Go completely out of yourself for God's love, and God comes completely out of himself for love of you. And when these two have gone out, what remains there is a simplified One. In this One the Father brings his Son to birth in the innermost source. Then the Holy Spirit blossoms forth, and then there springs up in God a will that belongs to the soul. So long as the will remains untouched

> by all created things, it is free. Christ says: "No one comes into heaven except him who has come from heaven" (Jn 3:13). All things are created from nothing; therefore their true origin is nothing, and so far as this noble will inclines toward created things, it flows off with created things toward their nothing.[169]

Eckhart speaks here of the Trinity, but how are we to understand him? He invites his listeners to let go of all images, to turn away from the world and what it tells us and to open themselves to the core of their selves. When they do so, they will recognize what is the right thing to do. That is what is suggested by "the Father brings his Son to birth in the innermost source." And they will not have to fear death, but in their freedom will recognize that death cannot touch their essence.

Eckhart likes to speak of the Only-Begotten Son of man, but the Son and His birth seems to have become parables in the sense in which Averroes might have spoken of metaphors and parables or in which Eckhart himself speaks of parables in *The Book of the Parables of Genesis*:

> Three preliminary remarks must be made to this *Book of the Parables*. The first is that you must not think that from the parables we intend to prove divine, natural and ethical truths through parabolical arguments of this kind. Rather we intend to show that what the truth of holy scripture parabolically intimates in hidden fashion agrees with what we prove and declare about matters divine, ethical, and natural.[170]

Eckhart claims to be able to prove his central insights and also that given proper interpretation of the metaphorical discourse of the Biblical text we can show it to be in agreement with what has been proven. In The *Book of the Parables of Genesis* Eckhart does appeal to the doctrine of the Trinity, especially to the second person, to Christ. But how does he understand it? How firmly committed is he? Consider the immediately preceding passage:

> We ought also to add that there is no doubt that anyone who wishes to search the scriptures in the way we have described will surely find that

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[169] *The Essential Sermons*, p. 184.
[170] *The Essential Sermons*, p. 95.

> Christ is hidden in them. "You search the scriptures … and it is they that bear witness to me" (Jn. 5:39); and below, "If you believed Moses, you would also believe me, for he wrote of me: (Jn 5:46). "I have used similitudes by the hands of the prophets" (Hos. 12:10) No one can be thought to understand the scriptures who does not know how to find its hidden marrow — Christ, the Truth. Hidden under the parables we are speaking of are very many of the properties that belong to God alone, the First Principle, and that point to his nature. Enclosed there are to be found the virtues and the principles of the sciences, the keys to metaphysics, physics, and ethics, as well as the universal rules. Also there we find the most sacred emanation of the divine Persons with their property of distinction under and in one essence, one act of existence, life and understanding. We find the production of creatures derived from them as their exemplar. We find how the Unbegotten Father, the Son Begotten from the Father alone, and The Holy Spirit breathed forth or proceeding from the Father and the Son as one principle, the Essential Concomitant Love and Notional Love, shine out in every natural, ethical, and artistic work. This will soon be clear in this *Book of the Parables of Genesis*, even in the first chapter.[171]

The question is: in just what sense do we find Christ in the Biblical parables? Eckhart seems to want to rationalize the Trinity, placing the Godhead above Father, Son and Holy Spirit, where these three persons seem to capture aspects of creation present in every natural object, every good deed, every work of art. These three aspects are reflected in the three transcendentals known to medieval theology: *unum* (one), *verum* (true), and *bonum* (good). They are constitutive of every thing insofar as it is a thing: every *ens* or entity is a created thing, illuminated by the divine logos, which descended and incarnated itself in the material world and gave it its order. And the same can be said of every moral act, every work of art.

Consider this passage from Eckhart's *Commentary on John*:

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[171] *The Essential Sermons*, p. 94.

> Finally I want to say in summary that the beginning of this chapter teaches the general features of all being, both uncreated and created. Regarding uncreated being, when it says, "In the beginning was the Word," its initial teaching is that there is an emanation of Persons in the Godhead, that there are three Persons, and that they have an order of origin one to another. Under the name "Beginning" or "Principle," understand the Father, under "Word" the Son, and because a word cannot exist without a breath, consequently also understand the Holy Spirit. In the second place the text teaches the divine properties of the proceeding Persons, especially of the Son, whose incarnation is the subject here in the passages, "The Word was with God" (signifying his personal distinction). "God was the Word" (signifying the unity of essence), and "This Word was in the Beginning with God (signifying the coeternity with the Father).[172]

It is easy to understand why someone like Eckhart should be drawn to just this gospel and especially to its beginning. But in the cited passage the incarnation of the Word is not mentioned.

It is, however, recognized in the following passage:

> 104. The literal meaning of these words, "He came to his own, and his own received him not," is that the Word assumed flesh in his chosen Jewish people to whom "the oracles of God were entrusted" (Rm. 3:2) and the Law was given in which Christ, his Incarnation and like things were prefigured. God's "people, the sheep of his pasture" (Ps. 99:3) did not receive him through faith.
>
> 105. "He came to his own, and his own received him not." The moral meaning is that God comes to the minds of men who dedicate themselves totally to him and who make themselves so much his that they no longer live for themselves, but for him. This is what is meant by "His own received him not, where "his own" are those who live for themselves, seeking what is theirs and not what is God's.[173]

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[172] *The Essential Sermons*, pp. 153
[173] *The Essential Sermons*, p. 162.

We should note how quick Eckhart is here to move from the literal to the moral meaning. Consider also the following:

> 118. "The Word was made flesh in Christ who is outside us. He does not make us perfect by being outside us; but afterwards, through the fact that "he dwelt among us," he gives us his name and perfects us "so that we are called and truly are God's sons (1 Jn 3:1). For then the Son of God, "The Word made flesh," dwells in us, that is in our very selves — "Behold God's dwelling with man, and he will dwell with them … and God himself will be with them as their God" (Rev. 21:3). "His name shall be Emmanuel, that is God with us" (Is. 7:14; Mt. 1:23); and "Rejoice and give praise, habitation of Sion, for great is the Holy One of Israel who is in your midst" (Is. 12:6). He says, "He dwelt among us." That is, "he made man his dwelling. Again, "He dwelt among us" because we have him in us. Anything takes its name and existence from what it has in it. This is what the Bride prays for in the Song of Songs: "Let him kiss me with the kiss of his mouth" (Sg. 1:1). After she received it, "The winter is past and gone, … the vines in flower yield their sweet smell, … for his lips are like a dripping honeycomb" (Sg. 2:11, 2:13, 4:11). John says therefore, "The Word was made flesh" in Christ, "and dwelt among us" when in anyone of us the Son of God becomes man and a son of man becomes a son of God. "See what manner of love God has given us, that we should be called and truly be God's sons' (Jn. 3:1).[174]

And finally this passage from Sermon 22, *gratia plena*.

> The Latin text that I have read is written in the holy gospel, and its meaning in German is: "Greetings to you, full of grace, the Lord is with you" (Lk. 1:28) The Holy Spirit will come down from above the highest throne, and will enter into you from the light of the eternal Father,
>
> There are three things here to understand. First, the lowliness of the angelic nature; second that he acknowledged himself unworthy to name

[174] *The Essential Sermons*, p. 168.

> the mother of God; third, that he did not speak the word only to her, but that he spoke to a great multitude, to every good soul that longs for God.
>
> I say this: If Mary had not first given spiritual birth to God, he would never have been born bodily from her. A woman said to our Lord: "Blessed is the womb which bore you" (Lk. 11:27). Then our Lord said: "It is not only the womb which bore me that is blessed; they are blessed who hear God's word and keep it" (Lk. 11:28). It is more precious to God to be born spiritually from every such virgin or from every good soul than that he was bodily born of Mary.[175]

Once again Eckhart privileges the spiritual reading over the literal reading of the Incarnation. The angel speaks to all who long for God; the son is born spiritually in every good soul. And this birth is said to matter more to God than the literal birth of Christ.

4

Clear in all this is Eckhart's privileging of the ineffable Godhead. Eckhart is all too ready to leap beyond creatures and creature knowledge. But just what does he leap to? To the Godhead, the core, that abyss we bear within ourselves and yet, which by its very nature has to resist all our attempts to name it. This leap threatens to leave behind the ethical as usually understood. This loss of the ethical dimension is particularly apparent in the text by the Rhenish mystic Suso I read you earlier. Let me return to and repeat it here:

> Whence have you come from?
>
> I have come from nowhere.
>
> Tell me, what are you?
>
> I am not.
>
> What do you wish?
>
> I do not wish.
>
> This is a miracle! Tell me, what is your name?

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[175] Ibid., pp. 192-193.

I am called nameless wilderness.

Where does your insight lead to?

Into untrammeled freedom.

Tell me, what do you call untrammeled freedom?

When a man lives according to all his caprices without distinguishing between God and himself, and without looking to before or after.[176]

I have tried to show in these sessions that modernity has one origin in an experience of God that places special emphasis on his infinity. As all definite content is recognized to be profoundly incompatible with the divine, the divine comes to be thought of as a nameless wilderness, an abyss. But a God who has become so indefinite threatens to evaporate altogether. Eckhart's Godhead threatens to transform itself into an empty transcendence. But such an empty transcendence cannot provide human beings with a measure. It does lead to a new experience of freedom. This freedom, as long as it acknowledges no measure, threatens to degenerates into license. This is what makes the second person of the Trinity, the Word so important. And this Word has to descend into the world, has to become concrete, as it does in the Ten Commandments, or it has to become flesh, as it does in Christ, if it is to bind freedom. This is what gives the doctrine of the Incarnation its enormous philosophical significance. But what sense can a philosopher make of the Incarnation? How does Eckhart understand the Incarnation? As a parable? But just how we to understand to understand the parable?

Eckhart, as we have seen, tends to understand the ineffable Godhead as the very core of human being. Such emphasis invites a movement of introversion. The individual is cast back into him- or herself. The movement I have described thus has to emphasize personal inwardness, the individual. In medieval mysticism we have indeed one root of a very modern subjectivism. The text by Suso I just read you is thus strangely close to the position of Sartre, notwithstanding the fact that the Sartre is a self-proclaimed atheist, while Suso is a self-proclaimed Christian, concerned to defend his teacher against the charge of heresy. To be sure the apparition here stands for what Suso would have us

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[176] Heinrich Seuse 9 e, *Das Buch der Wahrheit, Daz buechli der warheit*, ed. Loris Sturlese and Rüdiger Blumrich, intro. Loris Sturlese, trans. Rüdiger Blumrich, Mittelhochdeutsch — Deutsch (Hamburg: Meiner, 1993), pp. 56-57.

resist: the sort of understanding of freedom that could be found in the heresy of the Free Spirit. But the apparition in his little dialogue, which speaks in a language no so very far removed from that of Eckhart's sermons, suggests not only how little separates the heresy of the Free Spirit from Meister Eckhart, but also how little here separates the medieval mystic and the modern atheist. Already in the fourteenth century we meet with a conception of freedom as radical as anything the existentialists were going to come up with much later. In the next few sessions I shall pursue these themes of infinity, freedom, and the individual, which will link up with Renaissance humanism.

13. Eckhart's Teleological Suspension of the Ethical

1

I have suggested a number of times that the mystical movement that Eckhart so often is advocating is not so very different from what Kierkegaard called a movement of infinite resignation. And, as Kierkegaard also points out, such a movement leads to what he terms a teleological suspension of the ethical. It was just this sort of thing that the authorities who condemned Eckhart must have feared, just as no authority could have put up with Kierkegaard's Abraham, but would either have locked him up as insane or dealt with him as a would-be murderer. Eckhart raises related questions. Consider once more this passage we looked at last time:

> If anyone went on for a thousand years asking of life: "Why are you living?" life, if it could answer, would only say": "I live so that I may live." That is because life lives out of its own ground and springs from its own source, and so it lives without asking why it is itself living. If anyone asked a truthful man who works out of his own ground" "Why are you performing your works?" and if he were to give a straight answer, he would only say, "I work so that I may work."[177]

To live well, Eckhart seems to be telling us, we should not ask for the point of life, for justifications of it, but simply open ourselves to and accept the mystery of life.

But freedom here threatens to degenerates into license. We have here something that we can call, as I suggested, using Kierkegaard's term, a teleological suspension of the ethical, where the life that issues form such a suspension may have an angelic, but may also have a demonic cast. In the face of this threat, the Church found it impossible to remain silent.

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[177] *The Essential Sermons*, p. 184.

2

Let me conclude our discussion of Eckhart then by returning to the condemned articles found in the Papal bull that touch most directly on what we can perhaps call Eckhart's ethics.

Earlier I bracketed articles 4 – 15, to which I want to return now.

> The fourth article. Also, in every work, even in an evil, I repeat, in one evil both according to punishment and guilt, God's glory is revealed and shines forth in equal fashion.[178]

The Introduction (p. 44) points out that these articles are all drawn from a published work, the *Commentary on John,* and suggests that, as a Neoplatonist, Eckhart had little appreciation for the demonic power of evil. It calls attention to the fact that Aquinas thought evil necessary for the perfection of the universe, perhaps as a picture needs shadows. It is easy to grant that evil presupposes good, that as the negation of good it testifies to the good's power, just as being sick testifies to the gift of being healthy. But I suspect that this does not do justice to the radical nature of Eckhart's thought, which has its foundation in an understanding that makes God both infinitely distant and infinitely close to every created thing. That goes for the evil act as much as the good. If God is the ground of all that is, must that not include the good as well as the bad? I wonder therefore whether the very distinction between good and evil is not inevitably suspended by someone who turns to the Godhead as Eckhart would have us do. This is what talk of a teleological suspension of the ethical asserts.

God's glory, Eckhart is saying here, is revealed as much in evil acts, say in the acts of a Hitler, as in good acts, say in those of a Mother Theresa. But how can he, how can we, say this? Even the Introduction suggests that Eckhart had no good answer to those who would condemn this proposition. But the point is related to Eckhart's conviction that God is equally close to or distant from all creatures. Remember Eckhart's claim that God is no more present in a church than in a rose or for that matter a dung - heap. But if so, how could he be revealed more clearly in Mother Theresa than in Hitler?

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[178] Ibid., p. 78.

> The fifth article. Also a person who disparages someone, by the disparagement itself, that is, by the sin of disparaging, praises God; and the more he disparages and the more gravely he sins, the more he praises God.[179]

A first question is raised by the assertion that the person who disparages, praises God. This could be understood to mean: all creation praises God. And disparaging is part of creation. Again some of the previous considerations apply. Consider the case of sickness and health.

But this article goes further than the fourth article in suggesting that the greater offense praises God more clearly. Is it the intensity of his action that here matters? The way the individual puts himself into his disparaging, into his sinning?

> The sixth article. Also, anyone who blasphemes God himself praises God.[180]

What is it to praise God? What might that mean for Eckhart? Article six is perhaps even more difficult to accept than the preceding and the introduction does not try to reconcile what is said here with orthodoxy. You may want to read this together with this passage, which we discussed earlier:

> Man's last and highest parting occurs when, for God's sake, he takes leave of god. St. Paul took leave of god for God's sake and he gave up all that he might get from god, as well as all that he might give, together with every idea of god. In parting with these he parted with god for God's sake and yet God remained to him as God is in his own nature — not as he is conceived by anyone to be — nor yet as something to be achieved — but more as an "is-ness" (isticheit) as God really is.[181]

To return to the condemned article: what makes the blasphemer blaspheme God? Would one blaspheme what one does not care about?

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[179] Ibid.
[180] Ibid.
[181] Blakney, p. 204.

3

Articles 7 – 9 challenge the traditional conception of prayer. Consider

> The seventh article: Also, that he who prays for anything particular prays badly and for something that is bad, because he is praying for the negation of good and the negation of God, and he begs that God be denied to him.[182]

The Church must have thought this an especially serious issue, for its income in good part depended on the willingness of individuals to earn, so to speak, credit by giving to the Church. Once again the Introduction, recognizing the problem, still attempts to bring Eckhart in line with orthodoxy.

> A second major center of concern for the judges who grilled Eckhart at both Cologne and Avignon involved the role of prayer. The Meister's emphasis on the necessity of realizing the unity of ground between God and the soul led to statements seeming to deny the value of petitioning God for anything and thus appeared to eliminate prayer from the Christian life. The treatise on Detachment denies that one who is detached can pray if prayer is understood as petition, but affirms that if prayer is understood as union with God then detachment has its own form of prayer. If God and the soul share the same ground, then there is a sense in which it is foolish or impossible to ask anything from God, or at least to ask for anything that is less than God.[183]

The first part of this quote calls our attention to the importance Eckhart gave to detachment, which to him most manifests that we have been created in the image of God:

> I have read many writings both by the pagan teachers and by the prophets and in the Old and the New Law, and I have inquired, carefully and most industriously, to find which is the greatest and best virtue with which man can most completely conform himself to God, with which he can by grace become that which God is by nature, and with which man can come most to resemble that image which he was in God, and between which and God

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[182] *The Essential Sermons*, p. 78.
[183] *The Essential Sermons*, p. 59.

> there was no distinction before ever God made created things. And as I scrutinize all these writings, so far as my reason can lead and instruct me, I find no other virtue better than a pure detachment from all things; because all other virtues have some regard for created things, but detachment is free from all created things. That is why our Lord said to Martha: "One thing is necessary" (Lk. 10:42), which is as much as to say: "Martha, whoever wants to be free of care and be pure must have one thing, and that is detachment.[184]

Eckhart himself here invokes Avicenna:

> An authority called Avicenna says: "The excellence of the spirit which has achieved detachment is so great that whatever it contemplates is true, and whatever it desires is granted, and whatever it commands one must obey." And you should know that this is really so; when the spirit has attained true detachment it compels God to its being; and if the spirit could attain formlessness, and be without all accidents, it would take on God's properties. But this God can give to no one but himself; therefore God cannot do more for the spirit that has attained detachment than to give himself to it. And the man who has attained this true detachment is so carried into eternity that no transient thing can move him, so that he experiences nothing of whatever is bodily, and he calls the world dead, because nothing earthly has any savor for him. This is what Saint Paul meant when he said: "I live, and yet I do not; Christ lives in me" (Ga. 2:20).[185]

Eckhart goes on to explain just what it is that he has in mind:

> Now you may ask what detachment is since it is in itself so excellent. Here you should know that true detachment is nothing else than for the spirit to stand as immovable against whatever may chance to it of joy and sorrow, honour, shame, and disgrace, as a mountain of lead stands before a little breath of wind. This immovable detachment brings a man into the

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[184] Ibid., p. 285.
[185] Ibid., p. 288.

> greatest equality with God because God has it from his immovable detachment that he is God, and it is from his detachment that he has his purity and his simplicity and his unchangeability, and these things produce an equality between God and the man; and the equality must come about in grace; for it is grace that draws a man away from all temporal things, and make him pure of all transient things. And you must know that to be empty of all created things is to be full of God, and to be full of created things is to be empty of God.[186]

Detachment is thus not something that can be willed. It has to seize us. This is why Eckhart speaks of grace.

> But now I ask: "What is the prayer of a heart that has detachment?" And to answer it I say that purity in detachment does not know how to pray, because if someone prays he asks God to get something for him or he asks God to take something away from him. But a heart in detachment asks for nothing, nor has anything of which it would gladly be free. So it is free of all prayer, and its prayer is nothing else than for uniformity with God. That is all its prayer consists in. To illustrate this meaning we may consider what Saint Dionysius said about Saint Paul's words, when he said: "There are many of you racing for the crown, but it will be given only to one" (I Co, 9:24). All the powers of the soul are racing for the crown, but it will be given only to the soul's being — and Dionysius says: "The race is nothing but a turning away from all created things and a uniting oneself with that which is uncreated." And as the soul attains this, it loses its name and it draws God into itself, so that in itself it becomes nothing, as the sun draws the red dawn to itself so that it becomes nothing. Nothing else will bring man to this except pure detachment.[187]

But let me return to the Introduction's defense of Eckhart. Crucial, it tells us, is once again the *in quantum*, i.e. the in-as-much principle. But the suggestion that Eckhart is

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[186] Ibid.
[187] Ibid., p. 292.

speaking here "exclusively, abstractly, formally" is open to challenge. As we have seen, Eckhart certainly did teach that to pray, say, for health or that God grant victory in a certain battle, is to pray badly. The person who prays thus by singling out this thing is not saying yes to the whole of God's creation, including his own self. Eckhart teaches a more total affirmation, closer to what Nietzsche was to call *amor fati*.

> The eighth article. Those who are not desiring possessions, or honors, or gain, or internal devotion, or holiness, or reward or the kingdom of heaven, but who have renounced all this, even what is theirs, these people pay honor to God.[188]

Eckhart teaches us not to take our little self too seriously, teaches us not to be self-centered.

> The ninth article. Recently I considered whether there was anything I would take or ask from God. I shall take careful thought about this, because if I were accepting anything from God, I should be subject to him or below him as a servant or a slave. And he in giving would be as a master. We shall not be so in life everlasting. [189]

Article 9 rejects any understanding of our relationship to God as being like that of a slave to his master, a servant to his Lord.

4

Articles 10 – 13 are considered objectionable because they threaten to obliterate the distance between man and God. That they should be thought heretical is not surprising. The introduction's defense of Eckhart against the charge of heresy is once again expected. But the condemned propositions are all taken from sermons and those who heard these words were hardly going to make the fine distinctions the introduction would have us make. The words do indeed seem quite clear as they stand:

> The tenth article. We shall all be transformed totally into God and changed into him. In the same way, when in the sacrament bread is changed into Christ's Body, I am so changed into him that he makes me

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[188] Ibid., p. 78.
[189] Ibid.

> his one existence and not just similar. By the living God it is true that there is no distinction there.[190]

Like Averroes Eckhart here comes close, not only to denying an individual afterlife, but to considering the very desire for such an afterlife unchristian.

> The eleventh article. Whatever God the Father gave to his Only-Begotten Son in human nature, he gave all this to me. I except nothing, neither union, nor sanctity; but he gave the whole to me, just as he did to him.[191]

Christ here becomes the paradigmatic human being. In every human being existing in God, Eckhart seems to be saying here, God is fully present, as he was fully present in Christ.

> The twelfth article. Whatever holy scripture says of Christ, all that is true of every good and divine man.[192]

Especially troubling and counter-intuitive is the thirteenth article.

> The thirteenth article. Whatever is proper to the divine nature, all that is proper to the just and divine man. Because of that, this man performs whatever God performs, and he created heaven and earth together with God, and he is the begetter of the Eternal Word, and God would not know how to do anything without such a man.[193]

The introduction reports how Eckhart defended himself in Avignon. Of some interest is this report, quoted in the Introduction, by Franz Pelster of his defense:

> He defends this article in that Christ is the head and we the members; when we speak, he speaks in us. The union of the Word with the flesh in Christ was so great that it shares modes of predication so that God may be said to have suffered and man [to be] the creator of heaven.[194]

We should be reminded of what Averroes taught.

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190 Ibid.
191 Ibid.
192 Ibid.
193 Ibid., p.79.
194 Ibid., p. 53.

5

The 14th and 15th article are especially troubling. Here what I have called Eckhart's teleological suspension of the ethical becomes explicit.

> The fourteenth article. A good man ought to so conform his will to the divine will that he should will whatever God wills. Since God in some way wills for me to have sinned, I should not will that I had not committed sins; and this is true penitence.[195]

To fully affirm myself I have to affirm myself as the sinner I am. In that sense I have to affirm my sin.

> The fifteenth article. If a man had committed a thousand mortal sins, if such a man were rightly disposed he ought not to will that he had not committed him.[196]

Implied would seem to be once again something rather close to what Nietzsche called *amor fati*. Kierkegaard's edifying discourse *Purity of Heart* also comes to mind. Purity of heart is said by Kierkegaard to be to will one thing. Eckhart might have said something of the sort.

6

Eckhart's ethics are also at stake in articles 16-19, which de-emphasize the importance of exterior acts in a way that had to make the church uneasy.

Consider first this passage from sermon 5b

> So long as you perform your works for the sake of the kingdom of heaven, or for God's sake, or for the sake of your eternal blessedness, and you work them from without, you are going completely astray. You may well be tolerated, but it is not the best. Because truly, when people think they are acquiring more of God in inwardness, in devotion, in sweetness and in various approaches than they do by the fireside or in the stable, you

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[195] Ibid., p. 79.
[196] Ibid.

> are acting just as if you took God and muffled his head up in a cloak and pushed him under a bench. Whoever is seeking God by ways is finding ways and losing God, who in ways is hidden.[197]

With this in mind let us turn to articles 16 – 19.

> The sixteenth article. God does not properly command an exterior act.
>
> The seventeenth article. The exterior act is not properly good or divine, and God does not produce it or give birth to it in the proper sense.
>
> The eighteenth article. Let us bring forth the fruit not of exterior acts, which do not make us good, but of interior acts, which the Father who abides in us makes and produces.
>
> The nineteenth article. God loves souls, not the exterior work.

The condemned articles lead us indeed to the core of Eckhart's understanding of how we ought to live. In a sense what Eckhart here has to say may seem quite uncontroversial. Seemingly saintly acts may be done for very selfish reasons, a popular theme in the theatre of the Counter-Reformation. What matters is that we be in the proper state of mind. But how is this state of mind to be understood. According to Eckhart the proper state of mind is marked by a detachment that is at the same time love of the most insignificant part of God's creation, that experiences every, even the least part of creation as an epiphany of God. Eckhart has no interest in calling us to certain actions, like giving to the poor, or giving to the Church, or turning the other cheek. In whatever we do we should have a sense that what we are doing is what we should be doing, that we should feel bound, where Eckhart is convinced that the power that binds us is God, is the Word born within us. But just this raises the question suggested by the condemnation: how can we be sure that what binds us or what we allow to bind us is not "that Father of Lies who often turns himself into an angel of Light in order to replace the light of truth with a dark and gloomy cloud of the senses."[198] The Church was not wrong to see a connection between Eckhart and the Brotherhood of the Free Spirit, a link to forces that were threatening the established order. Eckhart was part of an awakening of a freedom

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[197] Ibid., p. 83
[198] Ibid., p. 77.

so radical that it refused to be bound either by philosophy or by religion. In Bruno we will meet with another expression of this freedom.

14. The Burning of a Heretic

1

Moving from the Condemnation of 1277 and Meister Eckhart to Giordano Bruno, we skip more than 250 years and move from France and Germany to Italy, where the Piazza Campo de' Fiori, where he was burned, is now a lively, popular tourist spot with colorful markets, a square that makes it easy to imagine oneself back in 1600. In medieval and Renaissance times this was one of the places where the action was: here there were inns for pilgrims and travelers. In the center of the square there is today a statue of the hooded Giordano Bruno by Ettore Ferrari. It was dedicated in 1889 and Swinburne commemorated it with an ode in 1899.

THE MONUMENT OF GIORDANO BRUNO

I

Not from without us, only from within,
  Comes or can ever come upon us light
  Whereby the soul keeps ever truth in sight.
No truth, no strength, no comfort man may win,
No grace for guidance, no release from sin,
  Save of his own soul's giving. Deep and bright
  As fire enkindled in the core of night
Burns in the soul where once its fire has been
The light that leads and quickens thought, inspired
  To doubt and trust and conquer. So he said
  Whom Sidney, flower of England, lordliest head
Of all we love, loved: but the fates required
  A sacrifice to hate and hell, ere fame
  Should set with his in heaven Giordano's name.

II

Cover thine eyes and weep, O child of hell,
  Grey spouse of Satan, Church of name abhorred.
  Weep, withered harlot, with thy weeping lord,
Now none will buy the heaven thou hast to sell
At price of prostituted souls, and swell
  Thy loveless list of lovers. Fire and sword
  No more are thine: the steel, the wheel, the cord,
The flames that rose round living limbs, and fell
In lifeless ash and ember, now no more
  Approve thee godlike. Rome, redeemed at last
  From all the red pollution of thy past,
Acclaims the grave bright face that smiled of yore
  Even on the fire that caught it round and clomb
  To cast its ashes on the face of Rome.

Fig. 2

Bruno is perhaps best known as a leading Copernican, someone who not only denied the earth its central position in the cosmos, but called the very concept of such a center into question by insisting on the infinity of the universe. Here is how Arthur Lovejoy in *The Great Chain of Being* describes his significance, a description explicitly endorsed by Alexandre Koyré:

> Though the elements of the new cosmography had, then, found earlier expression in several quarters,[199] it is Giordano Bruno who must be

[199] Here Thomas Digges (1546 – 1595) deserves special mention. In his *A Perfit Description of the Caelestiall Orbes according to the most aunciente doctrine of the Pythagoreans, latelye revived by Copernicus and by Geometricall Demonstrations approved* an appendix to the 3rd edition of his father Leonard Digges' almanach, *A*

> regarded as the principal representative of the doctrine of the decentralized, infinite, and infinitely populous universe; for he not only preached it throughout western Europe with the fervor of an evangelist, but also first gave a thorough statement of the grounds on which it was to gain acceptance from the general public.[200]

Even that brief description suggests immediately why the Church might have been concerned. There is first of all the challenge Bruno posed to a geocentric worldview. But that challenge is compounded when the cosmos is said to be infinite and infinitely many stars are said to be populated. We might speak here of the principle of cosmic homogeneity as opposed to the Aristotelian principle of cosmic heterogeneity. But the principle of cosmic homogeneity makes it difficult to make sense, not just of the Christian creation account, but more importantly, of the Christian salvation account, of the unique significance of Christ. How did that account relate to the populations of other planets and stars? The new cosmology and central dogmas of the Church seemed impossible to reconcile.

2

More than any other of his works, it was *The Ash Wednesday Supper* that established Giordano Bruno's reputation as a leading Copernican. The title already suggests that this will be a difficult and puzzling book: why should a work so often cited as a defense of the Copernican system be given a title that invites us to think of communion? — And the content of the work makes it quite clear: Bruno here is indeed as concerned with the Lord's supper, which he parodies, as he is with Copernicus. But what is the connection?

In the years following his execution, Bruno was generally vilified as an abominable atheist — Descartes' friend Marin Mersenne, e.g., condemned Bruno as "un

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Prognostication everlasting (1576), he rejected the idea of a firmament and made the universe infinite.

[200] Quoted by Alexandre Koyré, in *From the Closed World to the Infinite Universe* (New York: Harper Torchbook, 1958), p. 39.

de plus méchans hommes que la terre porta jamais,"[201] a charge repeated by Pierre Bayle in his *Dictionnaire* (1697).[202] The restoration of his reputation was helped enormously by the German philosopher Jacobi in his *Letter on Spinoza's Philosophy* (1785). From then on Bruno came to be most often cited as perhaps the first martyr that the Copernican revolution produced: On account of his denial of geocentrism and his teachings about the infinity of the cosmos, Bruno is supposed to have been tried for heresy by the Inquisition and burned at the stake in 1600. So understood he appears as a precursor of Galileo, whose less extreme fate shall occupy us later. Such an edifying interpretation of his gruesome end is, however, somewhat difficult to reconcile with the available facts. First of all there is the fact that it took the Church quite some time to place Copernicus's *De Revolutionibus* on the index of forbidden books. That only happened in response to the teachings of Galileo. The Minutes of the Inquisition of March 3, 1616 read as follows:

> The Most illustrious Lord Cardinal Bellarmine having given the report that the mathematician Galileo Galilei had acquiesced when warned of the order of the Holy Congregation to abandon the opinion which he held till then, to the effect that the sun stands still at the center of the spheres but the earth is in motion, and the Decree of the Congregation of the Index having been presented, in which were prohibited and suspended, respectively, the writings of Nicolaus Copernicus, *On the Revolutions of the Heavenly Spheres,* of Diego de Zuniga, *On Job,* and of the Carmelite Father Paolo Antonio Foscarini, his Holiness ordered that the edict of this suspension and prohibition, respectively, be published by the Master of the Sacred Palace.[203]

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[201] Frances A. Yates, *Giordano Bruno and the Hermetic Tradition* (Chicago and London: The University of Chicago Press, 1979), pp. 444-445, citing M. Mersenne, *L'Impiété des Déistes,* Paris, 1624, I, pp. 229-30. For a discussion of Mersenne's critique of the Hermetic tradition, see pp. 432 - 447.

[202] Paul Henri Michel, *The Cosmology of Giordano Bruno*, trans. R. E. W. Middelton (Paris, London, Ithaca: Hermann, Methuen, Cornell University Press, 1973), p. 10. Sidney Thomas Greenburg, *The Infinite in Giordano Bruno, With a Translation of His Dialogue, Concerning the Cause, Principle, and One* (New York: Octagon, 1978). p. 4.

[203] Maurice A. Finocchiaro, *The Galileo Affair. A Documentary History* (Berkeley: Univ. of Calif. Press, 1989), p. 148

The Decree of the Index was issued two days later.[204] Copernicus' main work was thus placed on the index only quite a bit after the execution of Bruno. And we should note that there were many other Copernicans in the Church who did not meet with Bruno's fate. There must have been other reasons that led the Church to single him out. We will come to those.

3

Let me return here to Mersenne's condemnation of Bruno: "one of the most evil persons the earth has ever born." What made Mersenne feel so strongly? Mersenne may be known to some of you as part of Descartes' circle. (Descartes himself was born in 1596.) Mersenne is the author of the very brief second Set of Objections to the *Meditations*. He was in fact at the very center of developments that were to lead to the new science. He evidently placed Bruno into a quite a different context.

As Frances A. Yates points out, Mersenne "devoted his energies to dethroning the Renaissance Magus from his seat and to attacking the efflorescence of base magics of all kind which the long prevalent Hermetism and Cabalism had brought in their train."[205] He and Descartes were at the very center of attempts to distance the new science from that science practiced by Renaissance magic. At issue in this attack on Renaissance magic are most fundamentally ontological issues: an animistic understanding of nature that was supposed to allow the magus to practice his art by "guiding the influx of *spiritus* into *materia*."[206]

A model is provided by the artist, as understood by Neo-Platonism. Here a passage by Plotinus:

> Still the arts are not to be slighted on the ground that they create by imitation of natural objects; for, to begin with, these natural objects are themselves imitations; then, we must recognize that they give no bare reproduction of the thing seen, but go back to the Reason-Principles from which Nature itself derives, and, furthermore, that much of their work is

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[204] Ibid., p. 149.
[205] Yates, *Giordano Bruno and the Hermetic Tradition*, p. 433.
[206] Ibid., p. 52.

> all their own; they are holders of beauty and add where nature is lacking. Thus Pheidias wrought the Zeus upon no model among things of sense but by apprehending what form Zeus must take if he chose to become manifest to sight.[207]

The work of art is understood here as a descent of spirit into matter. The gifted artist has the power to bring about such a descent. The magus claims a similar power. Mersenne and Descartes would have thought such an approach incompatible with true science. Descartes' model is not the inspired artist, but the craftsman, and so he promises us in the *Discourse on Method* a practical science of nature:

> But as soon as I had acquired some general notions concerning Physics, and as, beginning to make use of them in various special difficulties, I observed to what point they might lead us, and how much they differ from the principles of which we have made use up to the present time, I believed that I could not keep them concealed without greatly sinning against the law which obliges us to procure, as much as in us lies, the general good of all mankind. For they caused me to see that it is possible to attain knowledge which is very useful in life and that, instead of the speculative philosophy which is taught in the Schools, we may find a practical philosophy by means of which, knowing the force and the action of fire, water, air, the stars, heavens, and all other bodies that environ us, as distinctly as we know the different crafts of our artisans, we can in the same way employ them in all those uses to which they are adapted, and thus render ourselves the masters and possessors of nature.[208]

The knowledge promised here is tied to know-how. We understand things precisely to the extent that we know how to make them. In this sense we understand a circle; or a bicycle. We understand, in this sense, the human heart precisely to the extent that we can

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[207] Plotinus, *Enneads*, 5, 8, 1.

[208] Descartes, *Discourse on Method*, in *The Philosophical Works*, trans. Elizabeth Haldane and G. R. T. Ross (New York: Dover, 1955), vol. I, p. 119. Cf. also Bacon's call for *a Scientia Activa*. *Novum organum*, *The Works of Francis Bacon*, eds. J. Spedding, R. Ellis, D. Heath, vol. I, p. 134.

make an artificial heart. This is a very different kind of understanding than the intuitive understanding of the magus.

Mersenne, too, saw in magic the enemy of both true science and religion. And at the time magic was indeed an enemy to be reckoned with. In an age that saw the old world view in ruins, Renaissance magic promised a true renaissance, not a return to the worn out wisdom of Aristotle and his Christian followers, but to that older wisdom, supposed to have come down to us, if only in fragments, in the Hermetic treatises. As Frances Yates has shown, Bruno, too, was convinced of the superiority of the ancient religion of the Egyptians over Christianity, of the wisdom of Hermes over the teachings of Aristotle, convinced also that, as the Lament from the Asclepius had foretold, the Hermetic sun that had set so long ago was about to rise once again. And one only has to recall the threefold role of Hermes Trismegistus as philosopher, priest, and king to recognize that such expectation also held political implications bound to worry defenders of the establishment. They had to resist those who proclaimed that "The marvelous magical religion of the Egyptians will return," that "their moral laws will replace the chaos of the present age," and that "the prophecy of the Lament will be fulfilled."[209]

4

Even a cursory reading of the *Ash Wednesday Supper*[210] suggests that any interpretation of Bruno as the first martyr of the Copernican cause fails to do justice to the complexity of his life and thought. Such an interpretation also fails to do justice to the way he died. Bruno was executed on February 17, 1600, the day after Ash Wednesday.[211] He was then fifty-two. Early that morning he was led from the dungeon by the Friars of the Company of St. John the Beheaded, "dedicated to the comfort and

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[209] Yates, p. 215, in a discussion of Bruno's *Spaccio della bestia trionfante*.
[210] Giordano Bruno, *The Ash Wednesday Supper*, ed. and trans. Edward A. Gosselin and Lawrence S. Lerner (Hamden: Archon, 1977). For a critical edition of the original, see Giordano Bruno, *La Cena de le ceneri*, a cura di Govanni Aquilecchia (Turin, 1955).
[211] V. Spampanato, *Vita di Giordano Bruno*, Con documenti edite e inedite, vol. 1 (Messina: Principato, 1921), pp. 579-597. See also Gosselin and Lerner "Introduction" to Giordano Bruno, *The Ash Wednesday Supper*, pp. 11 - 53; Hans Blumenberg, *Die Legitimität der Neuzeit (*Frankfurt am Main: Suhrkamp, 1966), pp. 524-584; *Die Genesis der kopernikanischen Welt* (Frankfurt am Main: Suhrkamp, 1975), pp. 416-454.

conversion of condemned prisoners."[212] Bruno, however, unrepentant, made a point of ridiculing his executioners, averting his eyes from the crucifix offered to him. His tongue was spiked and the heretic burnt at the stake.

The year is significant. Many then hoped and were confident that the year 1600 would bring about the long dreamed of Golden Age.[213] Among them was another adherent of the Copernican cause: Tommaso Campanella, then in a Naples prison.[214] The execution of Bruno was to demonstrate the vanity of such dreams.

In an announcement published on February 19, 1600 in the *Avvisi Romani* we find an account of what occurred. We read there that this "*eretico obstinatissimo, ed avendo di suo capriccio formati diversi dogmi contro nostra fede, ed in particolare contro la SS. Vergine ed i Santi, volse obstinatamente morite in quelli lo scelerato*."[215] Surrendering to his capricious fantasy, the obstinate heretic refused to renounce the dogmas he had formed against the Catholic faith, particularly against the Virgin and the saints. No mention here of his Copernicanism. The report also says that he wanted to die a martyr for his conviction: "*e deciva che moriva martire e volentiere*."[216] If we are to believe this contemporary account, what was found most offensive was Bruno's rejection of central doctrines of the church, doctrines that at first blush would seem to have little to do with the Copernican revolution.

By that time Bruno had been imprisoned for eight years. He was first jailed in Venice on May 23, 1592. Just before then the ever restless Bruno had been in Germany, where he received an invitation from the Venetian patrician Giovanni Mocenigo to return to Italy, which he accepted.[217]

But let me backtrack and say a bit more about his life: Bruno was born as son of a soldier in 1548 in Nola near Naples — hence he calls himself with pride and affection

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[212] Gosselin and Lerner, p. 22; Spampanato, pp. 582-583.
[213] See Gosselin and Lerner p. 22; Yates, p. 355.
[214] Cf. John M. Headley, *Tommaso Campanella and the Transformation of the World* (Princeton: Princeton University Press, 1997), p. 30.
[215] Documenti romani XI, Spampanato, Vita, p. 786.
[216] Ibid.,p. 786.
[217] Spampanato, Vita, pp. 460-461, Documenti veneti, pp. 679-704. See also Paul Henri Michel, *The Cosmology of Giordano Bruno*, trans. R. E. W. Middleton (Paris, London, Ithaca: Hermann, Methuen, Cornell University Press, 1973), pp. 17-19.

the Nolan.[218] In 1563, he entered the convent of San Domenico Maggiore in Naples, the same convent where Thomas Aquinas had once lectured and is buried, and assumed the name Giordano. No doubt he made good use of the convent's impressive library, as Campanella was to do a quarter century later. Already at this early stage he appears to have been suspected of heresy. Still, he was ordained a priest in 1572 and became a doctor of theology in 1575.[219] Not that he was ever happy in this role. Further study in theology convinced him of the sterility of much theological speculation. He read forbidden authors such as Erasmus, whose works he is said to have hid in his privy, and, a far more serious charge, to have shown sympathy for the Arian heresy that denied the divinity of Christ.[220] Heretical thoughts would thus seem to have antedated his cosmological interests. When a trial on charges of heresy was being prepared against him he shed his monk's habit and fled to Rome, where he soon was accused of murder — a charge that was apparently unfounded. But facing yet another examination he fled Rome after just two months, in April 1576. He started his long wandering, passing through a number of north Italian towns. After a brief foray into France, he ended up in Geneva, where he was converted to Calvinism, only to make himself unpopular by attacking Antoine de la Faye, a leading Calvinist professor. Once again he was arrested, excommunicated, and rehabilitated when he retracted. But by then he had had enough of Geneva: he decided to leave that city and the city fathers, probably relieved, let him go. He then journeyed through France, hoping to be received back into the Catholic Church, without success. But, first in Toulouse, and later in Paris he finally found a congenial climate and was given a minor position at the court of Henry III, who was himself trying to steer a difficult course between the Catholic and Protestant factions that were threatening to tear France, as they were threatening to tear Europe, apart. We are on the eve of the Thirty Years War, the most destructive war Europe was to know until the 20th century. While in Paris, he published works on the art of memory and a comedy indicting Neapolitan society *(Il Candelaio)*. In 1583 he went to England, with an

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[218] For a brief account by Bruno himself of his early years, see *Documenti veneti* VIII, pp. 696-698.
[219] See Paul Henri Michel, *The Cosmology of Giordano Bruno*, trans. R. E. W. Middleton (Paris, London, Ithaca: Hermann, Methuen, Cornell University Press, 1973).
[220] Gosselin and Lerner, "Introduction," *Ash Wednesday Supper*, p. 16.

introductory letter by Henry III to Michel Castelnau, Marquis de Mauvissière and the French ambassador at Queen Elizabeth's court. Bruno himself was to hint at having been entrusted with a secret mission.

Bruno arrived in time to participate at Oxford in a debate on Copernicus that had been ordered by the queen in honor of the visiting Polish Prince Albert Laski.[221] But Bruno, the Copernican enthusiast, apparently did not distinguish himself, was indeed accused by his opponents of not knowing his Copernicus. Soon he was to avenge himself for the hostile reception with which he had met with his vitriolic caricature of Oxford scholars in the *Ash Wednesday Supper*. But whatever hopes he may have had of securing for himself a professorship were dashed, although for a time at least he did find in the household of the French ambassador as much of a home and security as he would ever find. While it lasted, it proved an amazingly productive period: it saw the publication of a considerable number of works on astronomy, morals, religion, and other topics. *The Ash Wednesday Supper* is just one of these. But Bruno's good fortune did not last long. In the fall of 1585 the ambassador was recalled to France and there was no one to take his place. So Bruno returned to Paris.

But by then the climate in the French capital had changed. The king had abrogated his policy of accepting and living in peace with the Protestants and Bruno soon made himself unpopular by attacking some of the figures on the Catholic side. So he left for Germany, where we find him lecturing and publishing a number of pamphlets, including his *160 Articles*, in which he pleads for the peaceful coexistence of all religions and for free and reciprocal discussion, ever on the lookout for a university appointment that would give him the freedom to teach and publish what he thought needed to be heard. And so we find him passing through Marburg on his way to Wittenberg, where he met at first with a friendly reception and stayed for 20 months, before the Calvinists, who by then had gained the upper hand over the Lutherans, caused him to leave in March 1588, to look for greener pastures in the Prague of Emperor Rudolph II, patron of so many magi. But here, too, he found it impossible to secure a more permanent position

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[221] Ibid., p, 18. See also C. F. A Yates, "Giordano Bruno's Conflict With Oxford," *Journal of the Warburg and Courtauld Institutes*, II, (1938-9), pp. 227 - 242 and R. McNulty, "Bruno at Oxford," *Renaissance News*, 13 (1960), p. 300 - 305.

and on he went to Helmstedt in Germany, where he once again managed to offend the academic establishment. This tim3 e it was the Lutherans who excommunicated him, although he found a protector in Heinrich Julius, duke of Brunswick. In Helmstedt he wrote Latin poems, developing his atomic theory of matter. After a year and a half the restless Bruno went to Frankfurt to publish them. The senate of the city denied his request for permission to stay, but he found refuge in a Carmelite convent, despite the fact that, as the prior said of Bruno, he did not possess a trace of faith.[222] He was in Frankfurt when Giovanni Mocenigo's fateful invitation to come to Venice reached him.

Venice was then known for its liberal attitude, Bruno was looking once again for a regular university position, and the chair for mathematics at the university of Padua had just become vacant. He went to that city, lecturing to German students. But the coveted chair was not offered to him, but to Galileo. So he went back to Venice, where he joined a circle of aristocrats interested in philosophical discussion. But since there seemed to be no real future for him in Italy, he decided to go back to Frankfurt, ostensibly to oversee the printing of some of his books. It was at this point that Mocenigo, disappointed perhaps in the private lessons that he had been receiving from Bruno in the art of memory, more likely feeling cheated that he had not been initiated into the magical arts in which he thought Bruno a master, angered at any rate by Bruno's decision to return to Germany, denounced him to the inquisition, accusing him of a host of heretical views, including the charge that Bruno claimed that the miracles Christ performed were only apparent, that Christ was in fact a magus, who initiated the apostles into his art.[223] Mocenigo had made good on his threat to keep Bruno in Venice one way or another.

Shortly after Bruno's arrest, the Inquisition began its interrogations, which were continued in Rome, where he was moved in January 1593, the Venetian authorities caving in to Papal demands. The transcript of the Venice interrogation has survived. We also have a report on the entire course of the interrogation: altogether there were 17 sessions.[224] Difficult to explain is why Bruno, who for seven years appeared to recognize

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[222] *Documenti veneti*, VII, p. 692.
[223] See Mocenigo's statement of March 23, 1592, Documenti veneti I, pp. 679-681.
[224] Spampanato, pp. 669-786. A summary of the trial was discovered and published by Angelo Mercafti: *Il sommario del processo di G. Bruno… (*Città del Vaticano, 1942,

and to repent ever more decisively the "errors" of his ways, and in April 1599 actually acknowledged his guilt, by September 16 should have fallen back into his old "errors," which he defended with ever more conviction to the very end.[225]

The main charges concerned key dogmas; cosmological issues were given much less weight by his judges; and there is hardly any mention of Copernicus in the entire record. To be sure, among the condemned theses is that of the eternity of the world, but, as we have seen, this is not a particularly Copernican thesis: an Aristotelian would be more likely to hold it. The Copernican issue is raised by Bruno, not by his interrogators, when he says of the *Ash-Wednesday Supper* that in this work he wanted to ridicule the geocentric views of some doctors.[226] The interrogators seem quite uninterested; they respond with a question that leads in a quite different direction: have you ever praised heretical princes?[227] As we know, there were good reasons for this question: in the *Ash Wednesday Supper* Bruno celebrates Queen Elizabeth as the ideal monarch, who would realize his political vision of a Europe that had become unified and overcome the division between Protestants and Catholics that was tearing it apart, granting religious freedom to all.

> There is no room here to speak of that earthly divinity, of that singular and most exceptional Lady, who, from this cold sky near the Arctic parallel serves as a beacon to the whole terrestrial globe: I mean Elizabeth, who in her title and royal dignity is not inferior to any king in the world; in judgment, wisdom, counsel and rule, she is second to none who holds the scepter on earth. I leave it to all men to judge what rank she holds among all other princes in her knowledge of the arts and sciences, as well as in her understanding and facility in all the languages spoken in Europe both by common and learned men. Indeed if the power of fortune corresponded to and equaled that of her most noble spirit and nature, this great Amphitrite would surely open her mantle and as much enlarge its

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Studi e testi, vol,. 101. For a discussion of the contents and significance of this summary, see Michel, *The Cosmology of Giordano Bruno*, pp. 18-20.

[225] Ibid., p. 20.

[226] *Documenti veneti* XIII (June 3, 1592), p. 733.

[227] Blumenberg, *Legitimität*, p. 326.

> circumference as to embrace not only Britain and Ireland but another whole globe as well, equal in size to the whole universe.[228]

Of special interest is fn. 56 on p. 130, explaining the significance of calling Elizabeth "this great Amphitrite."

> The wife of Neptune and goddess of the Ocean. Bruno applied this appellation to Queen Elizabeth again in his *De gli eroici furori*, which was dedicated to Sir Philip Sidney. This cognomen is part of the cult of Elizabeth which flourished among the courtiers and court poets. Elizabeth was also called a goddess (*diva Elizabetta)* and Astraea (the virgin goddess of Justice who had lived on earth during the Golden Age). Bruno sees the queen as Amphitrite, the ocean, who is the source of all numbers; thus she is a monad, a spiritual being who reflects within herself the whole universe in all its multiplicity. During his "English period" Bruno made Elizabeth an essential element of his Egyptian-Neoplatonic-magical religious reform, whose aim was the contemplation of the divine in all things, the searching out of the Unity behind the multiplicity of appearances, from which Unity emanate all Ideas. Elizabeth, therefore, is that Amphitrite, that One and Universal Monarch who, he believed, would aid him in establishing (and who would govern) the reformed Hermetic world.

Elizabeth is described as a light that illuminates the globe. And in this respect she may well be likened to the Copernican sun.

Before that Bruno had celebrated the French king Henry III as a peace-loving prince, who, not at all "pleased with the noisy uproar of martial instruments," with his justice and sanctity would reconcile Protestants and Catholics.[229] And after he became disenchanted with Queen Elizabeth, he expected that transformation of the Catholic faith of which he dreamed from the Calvinist King of Navarre, who had just converted to Catholicism in order to ascend to the French throne as Henry IV, but stood for religious freedom. Mocenigo had indeed reported to the inquisition that Bruno hoped to be rewarded by this king for his labors with honors and riches, that he expected to become a

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[228] *The Ash Wednesday Supper*, p. 119.

[229] Yates, Bruno, p. 181, quoting Bruno's *Spaccio della bestia trionfante*.

capitano — Bruno's dream of becoming a philosopher-king in the image of the thrice-great Hermes?[230]

That the Inquisition should have shown a great deal of interest in Mocenigo's report is hardly surprising. The King of Navarre was then engaged in a religious war that was to end only in 1598, when the king issued the Edict of Nantes, granting freedom of worship to Protestants, the same freedom Bruno claimed for himself. In the interrogation, to be sure, Bruno points out that he never met the King of Navarre, nor any of his ministers; that his praise was not for the heretic, but for someone who promised to bring peace; and he dismisses the suggestion that he hoped to become a *capitano*, a soldier: he was content with his chosen profession: philosophy.[231]

In an earlier session Bruno had offered the inquisitors a summary of his understanding of nature, underscoring his conviction that the universe was infinite, the inevitable outpouring of the infinite divine power, which had to express itself in an infinite space, in which could be found worlds without number, similar to our earth.[232] We still sense something of the enthusiasm with which, even in these dire circumstances, Bruno, citing the *Wisdom of Solomon*, Virgil's *Aeneid*, and *Ecclesiastes,* seized on this topic.

The inquisitors showed little interest. They wanted to know about his denial of the Trinity. That there is in fact an intimate connection between these cosmological and religious themes is demonstrated by *The Ash Wednesday Supper* to which I want to turn next time.

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[230] *Documenti veneti*, IV, p. 685. Cf. Yates, Bruno, pp. 340-346.
[231] *Documentri veneti* XIII, pp. 734-735.
[232] Documentri veneti XI, pp. 706-714.

15. The Ash Wednesday Supper

1

I think it a happy accident that we are having this session, to which I gave the tile of the book we are reading, *The Ash Wednesday Supper*, on Ash Wednesday. Ash Wednesday is the beginning of Lent, of the 40 days of fasting before Easter, commemorating the 40 days Jesus fasted in the desert before being tempted by Satan (Matthew 4:1-11). It is 46 days before Easter, where Sundays are considered not fast but feast days during Lent. The ashes placed on the forehead remind us of our mortality.

But let me turn to the book. As the prefatory epistle suggests, *The Ash Wednesday Supper* is both easy to read and difficult to understand: its style suggests both comedy and philosophy:

> This is a banquet so great and small, so professorial and studentlike, so sacrilegious and religious, so joyous and choleric, so cruel and pleasant, so Florentine for its leanness and Bolognese for its fatness, so cynical and Sardanapalian, so trifling and serious, so grave and waggish, so tragic and comic that surely I believe there will be no few occasions for you to become heroic and humble; master and disciple; believer and unbeliever; cheerful and sad; saturnine and jovial; light and ponderous; miserly and liberal; simian and consular; sophist with Aristotle, philosopher with Pythagoras, laugher with Democritus and weeper with Heraclitus. I mean that after you have sniffed with the Peripatetics, supped with the Pythagoreans, drunk with the Stoics, there will still be something left over for you to suck with him who, showing his teeth, smiled so pleasantly that his mouth touched both ears. Indeed, by breaking the bone and extracting the marrow, you will find something that would make a dissolute of St. Colombino, Patriarch of the Gesuati, would

> petrify any market-place, make monkeys split their sides with laughter, and break the silence of any graveyard. (AWS 67)[233]

One of Bruno's targets in the following dialogues is, as I already mentioned, the sacrament of the Eucharist, which is caricatured in the work and reduced to a disgusting ceremony. We shall have to come back to the political implications of this caricature. But let me already mention here that the celebration of the Eucharist was one of the issues that then divided Catholics and Protestants and soon was to help precipitate the Thirty Years War, the Protestants insisting on communion in both kinds, bread and wine, the Catholics on bread alone. As I mentioned earlier, it already figured importantly in the Hussite controversy.

Bruno's caricature of it had to put any good Christian on edge:

> Then thank God, the ceremony of the cup did not take place. Usually the goblet or chalice passes from hand to hand all round the table, from top to bottom, from left to right, and in all directions with no order but that dictated by rough politeness and courtesy. After the leader of this dance has detached his lips, leaving a layer of grease which could easily be used as glue, another drinks and leaves a bit of meat on the rim, still another drinks and deposits a hair of his beard and, in this way, with a great mess, no one is so ill-mannered, tasting the drink, as to omit leaving you some favor of the relics stuck to his moustache. If one does not want to drink, either because he has not the stomach or because he considers himself above it, he need merely touch the cup to his mouth so that he too can imprint on it the morsels of his lips. The meaning of all this is that, since all of them come together to make themselves into a flesh-eating wolf to eat as with one body the lamb or kid of Grunnio Corocotta. [The footnote informs you that Grunnio Corocotta refers to a suckling-pig whose last Will and Testament was a schoolboy joke] (AWS 126-127)

The suggestion is that only the most superficial kind of community is achieved by such a ceremony. That more essential, universal community of which Bruno dreamed and for

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[233] References in the text are to *The Ash Wednesday Supper*.

which he lived and died has been totally missed. The argument between Protestants and Catholics, whether the communicant should partake of both bread and wine, or just of the bread, seemed to him just silly. 150 years before him, one of Bruno's heroes, the cardinal Nicholas of Cusa (Nicolaus Cusanus) had called on all believers to rise above the perspectives that divided them, including the issue of whether the communicant should partake of both bread and wine, or just of the bread. This call is given a more radical, now no longer Christian turn by Bruno's Hermetic humanism. But let me continue with the caricature:

> By applying each one his mouth to the selfsame tankard, they come to form themselves into one selfsame leech, in token of one community, one brotherhood, one plague, one heart, one stomach, one gullet, and one mouth. (AWS 127)

In the prefatory epistle Bruno had promised his readers that his Ash Wednesday Supper would not be a banquet of leeches for trifle: What kind of a banquet then is this?

> You may well ask me: what symposium, what banquet is this? Is it a supper. What supper? Of ashes. What does "supper of ashes" mean? Has it taken place before? Can one properly say at this point: *cinerem tamquam panem manducabam*? (Psalm CI:10) No, but it is a banquet that begins after sunset on the first day of Lent, which our priests call *dies cinerum* and, sometimes, day of memento. What is the object of this banquet, this supper? Not only to consider the mind and accomplishments of the most noble and well-born Sir Fulke Greville, in whose eminent house we met; not only to consider the honorable customs of these most urbane gentlemen who were present as spectators and listeners, but mainly to see what Nature can do in creating two ghastly harridans, two dreams, two ghosts, two quartan agues. While the historical meaning of all this is being sifted and then tasted and chewed, we shall draw appropriate topographies of a geographical, ratiocinative, and moral order, and then make speculations of a metaphysical, mathematical and natural order. (AWS 68)

The Latin words, as the footnote informs you, cite a line from Psalm 102, which are spoken by one whose "days pass away like smoke," who "eats ashes like bread, and mingles tears with my drink because of thy indignation and anger," yet looks forward to the day when the Lord will appear in his glory and build up Zion. But while Bruno, too, harbors similar expectations, he does not expect their fulfillment from the Biblical God. His is a different deity. But he, too, is looking forward to a secularized Easter: a rebirth, a genuine renaissance.

When in his preface Bruno suggests that he is preparing for us with this work a higher supper, Plato's *Symposium* comes to mind, although Bruno says quite explicitly that this is not going to be the supper of Plato for philosophy. He has a different kind of audience in mind than Plato's symposiasts. What kind of audience? We are given a hint by the way, in the positive description of his banquet, Bruno makes a point of joining opposites: and sacrilegious and religious this banquet certainly is — small wonder the inquisition was concerned.

Bruno's play with oppositions invites us to think of this as a banquet for persons who have been impressed by Cusanus' doctrines of learned ignorance and the coincidence of opposites, and, together with, indeed perhaps even above Copernicus, Cusanus, the divine Cusanus as Bruno calls him, is one of the persons for whom he expresses great admiration.

> But in truth it signified little for the Nolan that the aforesaid [motion] had been stated, taught, and confirmed before him by Copernicus, Niceta Syracusus the Pythagorean, Philolaus, Heraclitus of Pontus, Hecphantus the Pythagorean, Plato in his *Timaeus* (where the author states this theory timidly and inconstantly, since he held it more by faith than by knowledge), and the divine Cusanus in the second book of his *Learned Ignorance*, and others in all sorts of first rate discourses. For he [the Nolan] holds [the mobility of the earth] on other, more solid grounds of his own. On this basis, not by authority, but through keen perception and reason, he holds it just as certain as anything else of which he can have certainty. (AWS 139)

It is indeed Cusanus, who is Bruno's most obvious precursor, and I want to take at least a brief look at the passage to which Bruno refers us here.

2

Let me turn then to the twelfth chapter of Book Two of Cusanus' *On Learned Ignorance*, perhaps that book's most often cited chapter:

> The ancients did not attain unto the points already made for they lacked learned ignorance. It has already become evident to us that the earth is indeed moved, even though we do not perceive this to be the case. For we apprehend motion only through a certain comparison with something fixed. For example, if someone did not know that a body of water was flowing and did not see the shore while he was on a ship in the middle of the water, how would he recognize that the ship was being moved? And because of the fact that it would always seem to each person (whether he were on the earth, the sun, or another star) that he was at the immovable center so to speak, and that all the other things were moved: assuredly, it would always be the case that if he were on the sun, he would fix a set of poles in relation to himself; if one the earth, another set; on the moon, another; on Mars another; and so on. Hence the world machine will have its center everywhere and its circumference nowhere, so to speak; for God, who is everywhere and nowhere, is its circumference and center.[234]

The poles by which we orient ourselves are fictions. They reflect what happens to be the standpoint of the observer.

In what sense were the ancients ignorant about their ignorance? They did not understand the nature of perspective! So they mistook perspectival appearance for reality. The earth appears to be at rest and at the center of our world. This led the ancients to believe that it was indeed at the center of the world. For Cusanus the idea of a cosmic center is itself no more than a perspectival illusion. But if we cannot establish the center of the cosmos we also cannot speak of firm boundaries.

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[234] Nicholas of Cusa, *On Learned Ignorance*, trans. Jasper Hopkins (Minneapolis: Banning, 1981), pp. 116-117.

The passage in *On Learned Ignorance* invites comparison with one by Copernicus in his *De Revolutionibus*:

> And why are we not willing to acknowledge that the appearance of a daily revolution belongs to the heavens, its actuality to the earth? The relation is similar to that of which Virgil's Aeneas says: "We sail out of the harbor, and the countries and cities recede." For when a ship is sailing along quietly, everything which is outside of it will appear to those on board to have a motion corresponding to the motion of the ship, and the voyagers are of the erroneous opinion that they with all that they have with them are at rest. This can without doubt also apply to the motion of the earth, and it may appear as if the whole universe were revolving.[235]

We have to learn to understand the power of perspective. Reflection on the nature of perspective will teach us that whatever presents itself to the eye, to perception, is subjective appearance. To get to actuality or objective reality we have to reflect on perspectival appearance. Actuality cannot be seen as it is**.**

Cusanus, however, was more radical than Copernicus in that he was led by such reflections to reject the idea of a cosmic center altogether. Such distrust of the eye is one of the defining characteristics of the modern understanding of reality. We shall have to return to it when we turn to Galileo.

To understand how difficult these reflections, which may seem obvious to us, must have been, how much what in the fifteenth and sixteenth centuries seemed obvious opposed them, let me quote you a passage from Tycho de Brahe's report of a new star (1573), a supernova we would now say, that he had observed.[236] It is well to remember that Tycho was supposed to have been the keenest observer of the heavens at the time, i. e. before the advent of the telescope:

> Last year (1572), in the month of November, on the eleventh day of the month, when according to my habit, I was contemplating the stars in

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[235] Nicolaus Copernicus, *De revolutionibus orbium coelestium* I, 8; Trans. in *The Portable Renaissance Reader*, ed. James Bruce Ross and Mary Martin McLaughlin (New York: Viking, 1953), p. 591.

[236] See Karsten Harries*, Infinity and Perspective*, pp.34-35.

> a clear sky, I noticed that a new and unusual star, surpassing the others in brilliancy, was shining almost directly above my head; and since I had, almost from boyhood, known all of the stars of the heavens perfectly (there is no great difficulty in attaining that knowledge), it was quite evident to me that there had never been a star in that place in the sky, even the smallest, to say nothing of a star so conspicuously bright as this. I was so astonished at the sight that I was not ashamed to doubt the trustworthiness of my own eyes. But when I observed that others, too, on having the place pointed out to them, could see that there really was a star there, I had no further doubts. A miracle indeed, either the greatest of all that have occurred in the whole range of nature since the beginning of the world, or certainly one that deserved to be classed with those attested by the Holy Oracles, the staying of the Sun in its course in answer to the prayers of Joshua and the darkening of the Sun's face at the time of the Crucifixion. For all philosophers agree, and facts clearly show it to be the case, that in the ethereal region of the celestial world no change, either of generation or corruption, takes place; but that the heavens and the celestial bodies in the heavens are without increase or diminution, and that they undergo no alteration, either in number or in any other respect; that they always remain the same, like unto themselves in all respects, no years wearing them away.[237]

Tycho shows himself here as in many ways committed to the traditional understanding of the cosmos. Note the presuppositions that make it so difficult for him to accept what he sees:

He is committed to the traditional view, rendered authoritative by Aristotle, that allows no generation or corruption in the ethereal region. The only exception is a divine miracle.

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[237] Tycho Brahe, *De Nova Stella*, trans. J. H. Wade as "The New Star, in *The Portable Renaissance Reader*, ed. James Bruce Ross and Mary Martin McLaughlin (New York: Viking, 1953), pp. 593-594.

Presupposed is still the heterogeneity of the cosmos. A mundane realm, which knows change and corruption, is opposed to a heavenly sphere, which does not know either.

Did Tycho's observations shatter that world view? I have already pointed out that more than a hundred years earlier Cusanus considered belief in cosmic heterogeneity as having its foundation in perspectival illusion and thus in ignorance. Consider the ending of Chapter 11 of Book II of *On Learned Ignorance*:

> For example, if someone were on the earth but beneath the northpole (of the heavens), and someone else where at the northpole (of the heavens), then just as to the one on the earth it would appear that the pole is at the zenith, so to the one at the pole it would appear that the center is at the zenith. And just as the antipodes have the sky above, as do we, so to those persons who are at either pole (of the heavens) the earth would appear at the zenith. And wherever anyone would be, he would believe himself to be at the center. Therefore merge these different imaginative pictures so that the center is the zenith and vice versa. Thereupon you will see — through the intellect, to which only learned ignorance is of help — that the world and its motion and shape cannot be apprehended. For the world will appear as a wheel in a wheel and a sphere in a sphere — having its center and circumference nowhere as was stated.[238]

The thought experiment is designed to undermine belief in an absolute center. But without an absolute center we cannot speak of absolute motion. Rest and motion are relative concepts.

The traditional hierarchical conception of the cosmos, on which Tycho de Brahe still relies, depends on the conception of a center. As this idea is undermined, so is the idea of a hierarchically ordered cosmos. That idea had thus been challenged speculatively long before there were observations like Tycho's star that supported that challenge. Indeed only the challenge presented by such speculation prepared the way for a science that took such observations seriously. Why did Tycho even bother to attempt to

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[238] *On Leaned Ignorance*, p. 116.

measure the parallax of his new star to show that it was indeed above the moon? And, after all, Tycho's star was not the first supernova to be observed. But the earlier sightings did not shake up the established worldview. The fact, that now it did have such an impact, testifies to the fact that the intellectual climate had changed.

I have suggested that the cardinal's speculations presuppose an awareness of and interest in the phenomenon of perspective. Cusanus loves to play games of perspectival variation, of putting oneself in another place. Historically and conceptually such interest and the boundless, objective, homogeneous space of the new science belong together.

In support of the thesis of comic homogeneity, Cusanus runs through a number of further considerations designed to show that we have no right to say that the earth is the lowest and therefore basest planet: nor is its darkness proof of its baseness. Thus Cusanus tries to show that its darkness is itself just a perspectival appearance — here his perspectivalism overshoots the mark: He suggests that every heavenly body has its earthly, watery, and fiery sphere. To see a heavenly body as luminous you have to be outside its fiery sphere. That is why we do not see the earth as luminous.

Nor is the earth distinguished by its size.

Nor by the influence other stars have on it. Cusanus carries the thought of cosmic homogeneity to the assertion that other heavenly bodies, too, must be inhabited. He even engages in some speculation concerning their being. He is aware that all such speculations are only that, mere conjectures, without much support. And it is not the details that matter here. What matters is the reflection on perspective and how it is used to undermine the traditional idea of a center. With that, the idea of cosmic heterogeneity also has to collapse. What place could one assign to heaven and hell in such a universe? The doctrine of learned ignorance leads not only to a rejection of the traditional geocentrism, but also leaves heliocentrism far behind. In this sense Koyré is right to suggest that Cusanus goes far beyond Copernicus. And on this point Bruno followed him. Small wonder that he calls Cusanus alone, among his precursors, divine.

3

Let me return to the First Dialogue:

Some time ago, two men came to the Nolan on behalf of a royal retainer in order to inform him [the Nolan] how much he [the retainer] longed for his conversation on [and thus his exposition of] Copernicus and other paradoxes in his new philosophy. To which the Nolan replied that in judging and determining he saw through neither the eyes of Copernicus nor those of Ptolemy, but through his own eyes. (AWS 85)

Smith. Please tell me, what opinion have you of Copernicus?

Teofilo. He was a man of deep, developed, diligent, and mature genius; a man not second to any astronomer before him except in order of succession and time; a man who in regard to innate intellect, was greatly superior to Ptolemy, Hipparchus, Eudoxus and all others who followed in their footsteps. This estate he attained by freeing himself from a number of false presuppositions of the common and vulgar philosophy, which I will not go so far as to term blindness. Yet, Copernicus did not go much further [away from the common and vulgar philosophy] because, being more a student of mathematics than of nature, he could not plumb and probe into matters to the extent that he could completely uproot unsuitable and empty principles and by resolving perfectly all the difficulties in the way, free both himself and others from numerous empty enquiries and fix their attention on constant and sure things.

In spite of this, who will ever be able to praise sufficiently the greatness of this German who, having little regard for the stupid mob, stood so firmly against the torrent of beliefs and, although almost destitute of vital reasons, took up again those despised and rusty fragments that he was able to get from the hands of antiquity, refurbished them together again with his mathematical more than natural reasoning. In this way, he brought the cause, which has been ridiculed, despised, and vilified, to be honored, praised, [to be] more credible than its opposite and certainly more serviceable and expeditious for theoretical and calculative purposes. (AWS 86)

Copernicus is criticized here for having studied mathematics more than nature. Copernicus thus did thus not recognize the infinity of the cosmos. He is thus only the dawn, preparing for the coming day, associated with Bruno himself.

Bruno also likens himself to Columbus and other explorers who discovered new worlds. But how much greater is his achievement!

> [If these men are so praised,] how shall we honor this man [the Nolan] who has found the way to ascend to the sky, encompass the circumference of the stars, and leave at his back the convex surface of the firmament? The helmsmen of explorations have discovered how to disturb everybody else's peace, [how to] mingle together that which provident nature had kept separate; [how] by intercourse to redouble defects and to add to old vices the new vices of other peoples, with violence to propagate new follies and to plant unheard-of inanities where they did not before exist, so that he who is strongest comes to conclude that he is the wisest. They showed new ways, instruments, and arts for tyrannizing and murdering each other. The time will come, when, in consequence of all this, those men, having learned at their own expense (through the way things turn out), will know how to and will be able to return to us similar and even worse fruits of such pernicious inventions. (AWS 88)

After that it is not difficult to understand why Bruno is to be praised much more than Columbus. His achievement will bring peace where theirs has brought us war:

> The Nolan, in order to cause completely opposite effects, has freed the human mind and the knowledge which were shut up in the strait prison of the turbulent air. (AWS 89)

> Now behold, the man [the Nolan] who has surmounted the air, penetrated the sky, wandered among the stars, passed beyond the borders of the world, [who has] effaced the imaginary walls of the first, eighth, ninth, tenth spheres, and the many more you could add according to the tattlings of empty mathematicians and the blind vision of vulgar philosophers. (AWS 90)

> In this way, we know that if we were on the moon or on other stars, we would not be in a place very different from this — and maybe in a worse place, just as there may be other bodies quite as good or even better in themselves in the greater happiness of their inhabitants. (AWS 90)
>
> Our reason is no longer imprisoned by the fetters of the eight, nine, or ten imaginary mobiles or movers. We know that there is naught but one sky, one immense ethereal region where those magnificent lights keep their proper distances in order to participate in perpetual life. These blazing bodies are the ambassadors who announce the excellent glory and majesty of God. So we are led to discover the infinite effect of the infinite cause, the true and living sign of infinite vigor, and we have the knowledge not to search for divinity removed from us if we have it near; it is within us more than we ourselves are. (AWS 91)

16. The Copernican Revolution

1

The thinker who figures most prominently in *The Ash Wednesday Supper* is Copernicus, raising this question: just how are Bruno's Copernicanism and his attack on traditional dogmas related? What kind of a Copernican was Bruno? In the Third Dialogue Bruno has Nundinio, one of the derided Oxford academicians, take a position rather like the Lutheran minister Andreas Osiander, who published and wrote a preface to the first edition of Copernicus' *De Revolutionibus*, supposedly by Copernicus, which Osiander hoped, would make the book more acceptable.

> Smi. What did Doctor Nundinio say next?
>
> Teo. "Then," he said in Latin, "I propose to interpret to you what we are saying: We must believe that Copernicus was not of the opinion that the earth moves, since this is unseemly and impossible, but that he attributed motion to it rather than to the eighth heaven, for ease in calculations. (AWS 136)

Bruno's stand-in, the philosopher Teofilo, replies sarcastically:

> Know that Doctor Torquato gave birth to this assertion; of all [the works] of Copernicus (although I can believe he had paged though them from cover to cover), he remembered only the names of the author, the book, and the printer, and the place where it was printed, the year, and the number of quires and pages; and because he was not ignorant of grammar he understood a certain prefatory epistle which was added by I know not what ignorant and conceited ass. [The latter] (as if he wanted to support the author by excusing him, or for the benefit of other asses who, finding greens and small fruit, would not put down the book without having eaten) gives this advice to them before they begin reading the book and considering its opinions. (AWS 137)

Bruno follows this with a long quote from Osiander's preface. I shall return to that quote next time.

As pointed out, with that phony preface to Copernicus' *De Revolutionibus* (1543) Osiander hoped to disarm hostility that the revolutionary hypotheses might arouse by insisting that what the book advances is indeed only a hypothesis, that no claim is made that things are in truth as they are described. As Osiander put it:

> These hypotheses need not be true or even probable; if they provide a calculus consistent with the observations, that alone is sufficient.

Osiander here places Copernicus in the tradition of such nominalists as Buridan or Oresme. Oresme had already supported the rotation of the earth and Cusanus, too, as we saw, had denied that the earth was at rest. But they did not couple their theses with the claim that science is able to give a true account of the cosmos. Quite the opposite: both operated with the assumption that an infinite gap separated God and the human knower, divine and human knowledge. We can perhaps speak of a theocentric conception of truth. To seize the truth, to seize reality as it is, we would have to place ourselves in God's position. But this is denied to a finite knower. This leads to what I have called the astronomical resignation of the medievals.

The reader of Copernicus' *De Revolutionibus* is given no sense of such resignation, as is shown by the fact that Bruno, without knowing the real author of the preface, calls its author an "ignorant and conceited ass," while the great astronomer Kepler terms the preface a *fabula absurdissima,* a most absurd tale. And this is what Bruno has his Teofilo say:

> Now see what a fine doorkeeper he is! Consider how nicely he opens the door and has you enter into participation in the most honorable knowledge, without which the ability to compute and calculate and practice geometry and perspective are nothing more than pastimes for ingenious madmen. Consider how faithfully he helps his master! (AWS 138)

Bruno is a careful enough reader to recognize that this preface is quite incompatible with the rest of the work

> For Copernicus it did not suffice just to say that the earth moves, but he also affirmed and asserted it in his dedicatory letter to the Pope. In this he wrote that the opinions of philosophers are very far from those of

> the common mob [whose opinions] are unworthy of being followed and most worthy of being avoided, since they are contrary to truth and right thinking. (AWS 138)

One gets a sense of the change that had taken place in the preceding century. With Copernicus we meet with a renewed confidence in the human ability to seize the truth about nature. Bruno shares that confidence.

Having read the preface, the reader, unaware of its real author, must have been surprised by what followed, a letter by Cardinal Schönberg of Capua and a dedication to Pope Paul III, which amounts to a second preface. Copernicus there tells of his reluctance to publish the treatise, his fear of how he and his work would be received. He speaks of how Cardinal Schönberg and a bishop encouraged him to publish the work. He tells the pope that it was nothing but the lack of agreement among astronomers that led him to rethink the geocentric thesis. Cardinal, bishop, and pope are thus invoked to underscore the Church's support for this undertaking. Copernicus goes on to insist that the geocentric world view is based on the authority of Greek science and philosophy, not on Scriptural authority, and that even antiquity knew of thinkers (such as Philolaus and Aristarchus) who thought that the earth moved. Astronomical problems, he suggests, led him to advance his new hypothesis. Too many ad hoc hypotheses were being advanced. The solution he was proposing seemed to him to work.

2

In this dedication already it is clear that Bruno was right, that Copernicus meant to claim truth for his heliocentric view. But this presupposes that the truth is available to human beings, that human beings are indeed capable of the truth. It also raises the question: how do we know that we do indeed have the truth. What is the test of truth? — assuming that the meaning of truth in the science of nature is correspondence. Astronomy according to Copernicus offers us more than a calculus consistent with observations. It is concerned with reality.

What are the conditions that propositions in science must meet to be taken seriously as claimants to truth? According to Copernicus there are two: first of all they must "save the appearances," i.e. they must agree with observations. This, however,

would not distinguish Copernicus from Osiander. But Copernicus also makes a second requirement: the hypotheses advanced have to agree with the axioms of physics, as he then understood them. Any explanation that violates these axioms cannot be taken seriously as a claimant to truth. Something very much like that continues to be taken for granted by scientists today. The question then arises: what grounds these axioms. This seems to call for something like a metaphysics of nature.

One such axiom accepted by Copernicus is that every celestial motion is circular; a second that it is uniform. Copernicus rejected the Ptolemaic system in part because it violated the requirement of uniformity.

Kepler was to recognize the untenability of both axioms, which invites an inquiry into how well founded supposed axioms of nature can ever be. What I want to emphasize here, however, is Copernicus' faith in the human ability to attain truth. To be sure, he hedges a bit when he writes:

> The philosopher endeavors in all matters to seek the truth, to the extent permitted to human reason by God.[239]

and writes

> With the favor of God, without whom we can accomplish nothing, I shall attempt to press further the inquiry into these questions.

But let me return to the dedicatory letter to Pope Paul III, referred to by Bruno. This was the pope who had called the Council of Trent, which issued in the Counter-Reformation and laid the foundation for the culture of the Catholic Baroque. Copernicus' main work appeared indeed in the very year 1543 for which the Council had been convoked. The constellation is a bit surprising: Copernicus, often considered one of the heroic founding figures of modernity, and the pope, often associated with traditionalist reaction to modernity. Or is there perhaps a more intimate connection between the two, between a science that had regained confidence and a Church that had also regained confidence? Once again I want to point out that only 73 years after its appearance, in

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[239] Edward Rosen, *Three Copernican Treatises, The Commentariolus of Copernicus, the Letter against Werner., The Narratio Prima of Rheticus*, 2nd ed. (New York: Dover, 1959), p. 26.

1616, did the Church place the book on the index, where it remained until 1822. At first opposition came more from the Protestant camp, including from Luther himself.

In this course I have been trying to exhibit the liberating power of the thought of an omnipotent, all-powerful God. In thinking the implications of the infinite power of God the Christian thinker is brought to the recognition that the world does not have to be the way Aristotle thought it had to be. Inseparable from the thought of God's omnipotence is the thought of the contingency of creation: God could have created a different world or perhaps no world at all. From our finite point of view, the world has to appear as just happening to be the way it is. We have no insight into the why of things. That would presuppose a proximity of divine and human reason that cannot be presupposed.

I suggested that the inability to explain the world had to liberate the imagination. The thought experiments of Oresme and Buridan are an expression of this freedom. And Copernicus, too, explicitly claimed such freedom of thought for himself. Why should he not be given the freedom of investigation that his Pagan predecessors enjoyed, he asks. The pursuit of truth requires freedom of inquiry.

But there is of course a decisive difference between the speculations of a Buridan and an Oresme and those of Copernicus. The nominalists' freedom of imagination went along with the kind of cognitive resignation that we still meet with in Osiander. Their freedom was purchased at the price of surrendering the claim to truth, which they were quite willing to leave to God. Remember Osiander's admonition, quoted by Bruno, here in Rosen's translation:

> So far as hypotheses are concerned, let no one expect anything certain from astronomy which cannot furnish it, lest he accept as the truth ideas conceived for another purpose, and depart from this study a greater fool than when he entered it.[240]

According to Osiander the astronomer should content himself with mathematical models that allow him to calculate the motion of the stars with the greatest possible simplicity.

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[240] Edward Rosen, *Three Copernican Treatises, The Commentariolus of Copernicus, the Letter against Werner. The Narratio Prima of Rheticus*, 2nd ed. (New York: Dover, 1959), p. 138,

The effectiveness of the model has its measure in the human, not in the divine intellect: it should be easy to work with.

I suggested that together with this freedom of inquiry, the undermining of the Aristotelian philosophy of nature belongs to the presuppositions that made a Copernicus possible. But even taken together they are not quite sufficient to account for that possibility. What it does not explain is Copernicus's unwillingness to renounce the claim to truth. Just this is stated very clearly in the dedicatory letter to Pope Paul III.

Here it is interesting to note that Copernicus points out that this work was written *in hoc remotissimo angulo terrae*, in this most remote corner of the earth. He is referring of course to the fact that he was working and writing in Frauenburg, far away from such centers of learning as Padua, Florence, or Rome. But he also knows that this eccentric location does not deny him access to the truth: reason can triumph over eccentricity.

Nietzsche later waa to claim that Copernicus' rejection of geocentrism necessarily had to lead also to a rejection of the claim that man is capable of seizing the truth. This, however, would not seem to have been an idea Copernicus himself entertained.

3

Copernicus claimed to have seized the truth. In this connection we should keep in mind the foundation of his thought in humanism, a Christian humanism, to be sure. This Christian humanism triumphs over the skepticism that is a consequence of the theocentric conception of truth. As an example of this humanism I quote in *Infinity and Perspective* a passage from Petrarch's *On His Own Ignorance and That of Many Others*. Petrarch there quotes from Cicero's *De natura deorum*. Cicero imagines a shepherd who sees the ship on which the Argonauts sailed to Colchis:

> When the shepherd saw this ship from a distant mountain, he was stupefied and terrified by the novelty of the miracle and made various conjectures; whether a mountain or rock thrown out from the bowels of the earth was driven along by the winds and hurled over the sea, or

> whether "black whirlwinds were conglutinated by a collision of the waves," or something of this kind.[241]

The shepherd then sees the heroes on the boat and begins to understand the phenomenon. Cicero draws from this the following lesson:

> This man believed at first sight he was beholding an inanimate object devoid of sense. Then he began to suspect from clearer indications what it was about which he was in doubt. In such a manner the philosophers may perhaps have been confused when they first beheld the world: However, as soon as they saw that its motions are finite and equable and every single one organized in a precisely calculated order and in immutable consistency, they were compelled to understand that there is someone in this heavenly and divine mansion who is not merely an inmate, but a ruler and supervisor and, as it were, the architect of this huge work and monument.[242]

God is like an architect. This is to say, he is like a human craftsman. Both are governed by reason.

> We see something moved by machinery, for instance a sphere, a clock, and a great many other things. Are we not convinced by such sights that they are works contrived by reason? When we see the moving impulse of the sky rotating around and revolving in admirable swiftness, most constantly producing the annual alterations for the most perfect welfare of everything, do we then doubt that all this comes to be not merely by reason, but by some outstanding and divine Reason? For we may now put aside all subtle discussion and behold to a certain degree with our eyes the beauty of everything of which we say that it has been brought into existence by Divine Providence.[243]

The beauty of the cosmos lets us feel at home in the world.

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[241] Petrarca, "On His Own Iognorance and that of Many Others," trans. Hans Nachod, *The Renaissance Philosophy of Man*, ed. Ernst Cassirer, Paul Oskar Kristeller, John Herman Randall, Jr. (Chicago: University of Chicago Press, 1971), p. 82.
[242] Ibid.
[243] Ibid., p. 85-86.

Petrarch adds that Cicero speaks here not like a philosopher, but like an Apostle, namely like Paul, who in his *Letter to the Romans* wrote:

> God has made it manifest to them. For the invisible things of Him since the creation of the world are understood and clearly seen by the things that are made, even his everlasting power and divinity.[244]

Petrarch thinks that Cicero leads us to this conclusion:

> Whatever we behold with our eyes or perceive with our intellect is made by God for the well-being of man and governed by divine providence and counsel.[245]

God created the world for human beings and that includes to be known by them. Our desire to understand creation is therefore not in vain. God created the world so that we might understand it and admire Him in it.

Copernicus's humanist training must have made him familiar with such thoughts. Indeed, Copernicus expresses a seemingly Christian sentiment when he writes:

> With the favor of God, without whom we can accomplish nothing, I shall attempt to press further the inquiry into these questions.

And yet this also recalls Cicero who writes:

> Without divine inspiration no one ever was a great man.

A Christian humanism would seem to be a presupposition of the new science. Without faith in the power of human reason to seize the truth Copernicus could hardly have persevered as he did.

4

Copernicus tells us in his prefatory letter to Paul III that nothing other brought him to his revolution than the inability of the mathematicians, i.e. the astronomers, to agree on one account of the motions of the heavenly bodies. What problems were these? Fundamentally the plurality of hypotheses noted by Osiander. Let me reads you again from his preface:

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[244] Ibid., p. 87, quoting Cicero, *De natura deorum*
[245] Ibid.

> Now when from time to time there are offered for one and the same motion different hypotheses (as eccentricity and an epicycle for the sun's motion) the astronomer will accept above all others the one which is easiest to grasp. The philosopher will perhaps rather seek the semblance of truth. But neither of them will understand or state anything certain, unless it has been divinely revealed to them.

Osiander's position here is essentially the same as that of Thomas Aquinas (ST II, 32, art 1ad2, *Commentaria in libr. Arist. de caelo et mundo*, XII, 17), who points out that, as Aristotle already knew, astronomners do not possess sufficient reason to decide between competing hypotheses. I already mentioned one problem that, according to Ptolemy, astronomy alone could not answer. Should the order of the planets be

moon, Mercury, Venus — Sun — Mars, Jupiter, Saturn

or

moon — Sun — Mercury, Venus, Marc, Jupiter, Saturn

Either hypothesis would do equally well to explain the observed phenomena, which prevented the astronomer from claiming truth for either. Copernicus found such uncertainty intolerable. To him it appears to have suggested the thought that the planets had no independent orbits around the earth, but orbited around the sun, leaving the moon alone to rotate around the earth. Up to this point there is no good reason to include the earth among the planets. The Tychonic solution suggests itself. But especially two reasons, Hans Blumenberg suggests,[246] prevented Copernicus from stopping at this solution:

i. The assumed realism of the spheres

ii. His *horror vacui*

Once the planets had all been related to the sun as their center a large empty space appeared between the outer surface of the sphere of Venus and the inner surface of the sphere of Mars. Only by assuming the earth to be a planet, orbited by the moon, could this space be filled. This ascribed to the moon an embarrassingly unique role, difficult to reconcile with the assumption of cosmic homogeneity. It became the great exception and

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[246] Hans Blumenberg, *Genesis of the Copernican World*, .trans. Robert M. Wallace_ (Cambridge: MIT Press, 1987), pp. 286, 289.

this remained an obstacle to acceptance of the Copernican system until Galileo discovered the moons of Jupiter.

Duhem, who called the Condemnation of 1277 the birth certificate of modern physics, blamed Copernicus for his realism. Siding with Osiander, he suggests that Copernicus, indeed any scientist, should have been content with hypotheses. But if Copernicus had indeed been such a fictionalist he would scarcely have arrived at his cosmology. Again and again his reasoning depends on certain assumptions about how the world is in fact, on his understanding of the axioms of physics. Many of the assumptions Copernicus made about nature proved, to be sure, false: as mentioned already, his axiom that the motion of heavenly bodies had to be circular and uniform was soon rejected. Copernican faith in the truth of his cosmological model was thus coupled with an understanding of the essence of nature that was soon surpassed as the science that he himself helped to inaugurate made further progress.

This failing is instructive. Consider again these two requirements Copernicus places on a description of the cosmos that can claim truth: it must be faithful to observation and it must be in accord with what we take to be the essence of nature. Science on this view rests on something like an ontology or a metaphysics of nature. That metaphysics prescribes a certain form of description. The commitment to this form of description is inseparably linked to the scientists' claim to truth.

With his determination of the being of nature as *res extensa* a century later Descartes hoped to secure that ontology and thus the proper form of description for science and the claim of science to the truth. Newton called the Cartesian ontology of nature into question and Newton in turn was called into question by Einstein. All these however depended on an ontology or a metaphysics of nature. It would be instructive to follow the evolution of what I have called here the metaphysics of nature, beginning with Aristotle, and his insistence on what I have called the cosmological difference, moving on to a discussion of how the theological difference invited a skepticism that suggested that science must be content to save the phenomena, showing then how a Christian humanism encouraged science to once again lay claim to truth and how this commitment to truth, although often challenged, has presided over the progress of science from Copernicus to today.

17. The Return of the Sun

1

Much of our last session was spent on Copernicus. And, as I pointed out, the *Ash Wednesday Supper* established Bruno's reputation as a defender of Copernicus. But, as I also pointed out, the very title calls such an interpretation into question: The title invites us to think of both Ash Wednesday and the Last Supper. And such thoughts appear to have been more significant to Bruno than the teachings of Copernicus. I shall return to both.

But let me begin by returning to the fact that with his understanding of an infinite cosmos Bruno left Copernicus far behind. Consider once more his measured praise of Copernicus:

> In spite of this, who will ever be able to praise sufficiently the greatness of this German who, having little regard for the stupid mob, stood so firmly against the torrent of beliefs and, although almost destitute of vital reasons, took up again those despised and rusty fragments that he was able to get from the hands of antiquity, refurbished them together again with his mathematical more than natural reasoning. (AWS 86)

Consider the contrast Bruno draws between Copernicus and himself:

> Who, then, will be so rude and discourteous toward the labors of this man as to forget how much he accomplished, and not to consider that he was the dawn which must precede the rising of the sun of the ancient and true philosophy, for so many centuries entombed in the dark caverns of blind, spiteful, arrogant, and envious ignorance? (AWS 87)

The praise Bruno heaps on himself is based on his power of flight, his ability to leave at his back the convex surface of the firmament. He is a space traveler. Not actually of course. His travels take place only in thought. But precisely in this way they testify to the mind's power of self-transcendence, that same power that was emphasized by the Arab interpreters of Aristotle and that played such an important part in Eckhart's thought. The introduction rightly underscores the ethical dimension of Bruno's thinking of the

infinite. In this connection it quotes from Cassirer's *The Individual and the Cosmos in Renaissance Philosophy*:

> … Giordano Bruno did not look upon the problem of space as exclusively or even primarily a problem of cosmology or natural philosophy, but rather as a question of *ethics*…. Bruno never affirms the infinity of space by basing himself on the simple testimony of empirical or mathematical vision. He considers sense and intuition as such to be incapable of leading to the true concept of infinity. Rather, we grasp the infinite with the same organ with which we grasp our own spiritual being and essence: the principle of its knowledge is to be sought nowhere but in the Ego, in the principle of self-consciousness. If we want to penetrate the true essence of the infinite…. we must perform a free act and a free upward movement of the mind to raise ourselves to it. (AWS 42)

The ground of the assertion of the infinity of the cosmos lies in self-consciousness, in that power of self-transcendence that cannot be separated from self-consciousness. As shown by Nicholas of Cusa, to whom I turned briefly two sessions ago, that movement has to leave geocentrism behind as a merely perspectival phenomenon. And not just geocentrism, but also heliocentrism, calling the very idea of a cosmic center into question. This allows Bruno to place himself above Copernicus as the rising sun is higher than the dawn. And it invites us to read Copernican heliocentrism not just literally but also, and more importantly, metaphorically. The rising sun stands for the rising truth. We will finally leave the Platonic cave and step unto the plain of truth. There is, however, tension between Bruno's use of the solar metaphor and his understanding of an infinite cosmos that has no center.

2

Bruno extends such reflection from space to time. Time, too, he insists, knows neither an end nor a beginning. History is thus like an endless sequence of light giving way to darkness only to again return. This, as we have seen, is essentially the view of Plato or Aristotle. Bruno invokes an older tradition. Already in our first session on Bruno I spoke of his hope that the old Egyptian Hermetic sun that had set so long ago

was about to rise once again. Bruno dreams of a return of the ancient Hermetic wisdom. He appeals to this ancient wisdom in the first dialogue:

> Pru. Be that as it may, I am loath to depart from the opinion of the ancients, because, as the wise man [Job] says, in antiquity there is wisdom.
>
> Teo. And in many years there is prudence, as the saying continues. If you understood correctly what you said, you would see that from your principle can be inferred the contrary of what you think. I mean that we are older and have greater age than our predecessors; I mean, in that which has to do with certain judgments about the matter we are discussing. The discernment of Eudoxus, who lived soon after the rebirth of astronomy (if indeed it was not reborn in him), could not be as mature as that of Calippus, who lived thirty years after the death of Alexander the Great; as years were added to years, so observations were added to observations… Copernicus, almost in our time, has seen the most of all. But what of those others who, notwithstanding that they lived later, were no more discerning than those who are of our own time but who have not, on that account, more wit? This comes because the former did not, and the latter do not, relive the lives of the others. And what is even worse, the former and the latter both lived like corpses in their own years. (AWS 94)

Bruno here speaks of progress; but he also speaks of a rebirth of astronomy, suggesting a more ancient wisdom. He thus suggests that one can speak of progress in astronomy in the short, but not in the long run , and Bruno would no doubt have us generalize the point.

When Prudenzio keeps insisting that he remains a friend of antiquity, that so many men of great wisdom cannot have been ignoramuses, Teofilo comes back:

> Before the philosophy which suits your brain arose, there existed the philosophy of the Chaldeans, of the Egyptians, of the magi, of the Orphists, of the Pythagoreans and of others who spring readily to mind [and] who better suit our head; from them first rebelled frivolous and empty logicians and mathematicians who were not so much enemies of Antiquity as strangers to the Truth. Let us put aside then the question of the old and the

> new, seeing that there is no new thing which cannot be old and there is no old thing which has not been new, as your Aristotle rightly noted. (AWS 94-95)

Bruno agrees with Aristotle that the cosmos has no beginning. Bruno's cosmos is infinite in both space and time. From this it follows that there is nothing really new. What looks like progress it just like the movement from night, to dawn, to day. And there is a succession of days. And what Aristotle has to say about nature applies also to the human realm:

> Your Aristotle noticed, I say, that what happens to all things, happens no less to different opinions and ideas; in fact, to evaluate philosophies according to their antiquity is like trying to decide which came first, night or day. That upon which, then, we must fix the eye of consideration is whether we are in the daylight with the light of truth above our horizon, or whether it is in that of our antipodal adversaries. Are we in the dark or are they? And, in conclusion, are we, who make a beginning of the renewal of the ancient philosophy in the morning which makes an end of the night, or are we rather in the evening which ends the day? (AWS 96)

Bruno is clearly an elitist. The wisdom he has to teach is esoteric, accessible at best to a small elite.

> Teo. It is a gift of the gods if they guide you and destine you to cross paths with a man who is not so much esteemed as a true guide but in truth is such a one, and [if the gods] illuminate your inner spirit to choose what is best.
>
> Smi. But one usually follows the common opinion, so that in case of error he will not be without general approval and companionship.
>
> Teo. A thought most unworthy of a man! It is for this reason that wise and sublime men are rare. And this is the will of the gods, since what is common and general is neither esteemed nor considered valuable. (AWS 99)
>
> … but in the end it is safer to seek the true and the proper outside the mob, because it [the mob] never contributes anything valuable and worthy.

> Things of perfection and worth are always found among the few. (AWS 100)

In England, which Bruno obviously despised for its dirt and vulgarity, he yet hoped to find a few spirits ready to embrace his aristocratic Hermetic wisdom, including especially queen Elizabeth.

3

Copernicus, as we have seen, is understood by Bruno as the dawn of the sunrise he associates with himself. The sun is rising once more, that sun which unmasks the old learning as mere ignorance. But we must keep in mind the ambivalence of Bruno's post-Copernican cosmological vision. There were those who, like Bruno, rejoiced in the way the cosmos seemed to have opened up, who felt that they had been released from a prison. An age of freedom was about to begin.

But Bruno, too, knew about the nihilistic implications of his vision of the cosmos. Here some lines he wrote in the album of the University of Wittenberg in 1586 under the title *Salomon et Pythagoras*:

> Quid est quod est?
> Ipsum quod fuit.
> Quid est quod fuit?
> Ipsum quod est.
> Nihil sub sole novum.[247]

The lines are a paraphrase of *Ecclesiastes* 1, 9-11

> What has been is what will be,
> And what has been done is what will be done;
> And there is nothing new under the sun.
> Is there a thing of which it is said: See, this is new'?
> It has been already,
> In the ages before us.

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[247] "Documenti tedeschi", III. Spampanato, Vita, p. 664. See also "Documenti veneti" XI, p. 711, where Bruno explains to the inquisitors his understanding of the hird person of the Trinity, "modo pittagorico," as the life granting soul of the universe.

> There is no remembrance of former things,
> Nor will there be any remembrance
> Of later things yet to happen.

This we read in the Bible. This is the other and darker side of the joy with which Bruno greeted the Copernican revolution, the shadow that attends the progress of freedom and truth. This conjunction of nihilistic despair and joy is related to the way nihilism led Nietzsche to what he called his Gay *Science*.

It is hardly surprising then that Nietzsche should have linked Copernicus to nihilism:

> Has the self-belittlement of man, his will to self-belittlement not progressed irresistibly since Copernicus? Alas, the faith in the dignity and uniqueness of man, in his irreplaceability in the great chain of being, is a thing of the past — he has become an animal, literally and without reservation and qualification, he who was, according to the old faith, almost God ('child of God', 'Godman').[248]

As Bruno demonstrates, there is a much more positive reading of Copernicus. The Enlightenment thus was to follow Bruno and celebrate Copernicus as one of the great liberators of mankind. But the one response inevitably accompanies the other. Common to both is an understanding of Copernicus as marking the ambiguous threshold of our modern world, which presents itself as shadowed by the problem of freedom, a problem that is inevitably also the problem of meaning and its threatened loss.

Bruno's vision of the cosmos is thus the precursor of the tale that introduces Nietzsche's *On Truth and Lie in an Extra-Moral Sense*:

> In some remote corner of the universe, poured out and glittering in innumerable solar systems, there once was a star on which clever animals invented knowledge. That was the haughtiest and most mendacious moment of "world history" — yet only a minute. After a few breaths the star grew cold and the clever animals had to die.

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[248] Nietzsche, *Zur Genealogie der Moral*, III, par. 25; KSA 5: 404; trans., p. 155.

Bruno might have added that this gives still much too much significance and uniqueness to the event. Would the tale not have been better told had Nietzsche not spoken, in the pathetic superlative, of the haughtiest and most mendacious moment, but of a happening that repeats itself over and over again. But he would have rejected Nietzsche's suggestion that the infinity of the cosmos makes it impossible for us human knowers to lay claim to truth. History may be and endless succession of night and day, but those who, like Bruno are fortunate enough to stand "in the daylight with the light of truth above our horizon," can seize the truth.

4

I agree with Cassirer when he claims that the problem of space for Bruno was first of all a problem of ethics. And I would add, with Bruno this was first of all the problem of freedom. Bruno experienced his world as still a dark prison. Here we should take a brief look at the description of the journey to Sir Greville's mansion in the Second Dialogue, which presents us with a world where mud and sludge inhibit freedom, a description that, as the prefatory Epistle points out, "will be judged by all to be more poetic, and perhaps allegorical, than historical." (AWS 69):

> But now I really need thee, sweet Mefelina [Melpemone, the muse of tragedy, corrupted], who art the muse of Merlin Cocaio [a Benedictine monk and parodist]. There was a street which began as a mudhole around which, either by design or by chance, there was no detour. The Nolan, who had studied and lived at schools more than any of us, said: I think this is a swinish passage; nevertheless, follow me." He had not finished these words when he suddenly fell so deeply into the mud that he could not pull his legs out; and, thus, helping each other, we passed through that stretch of road, hoping that that purgatory would not last long. But through an iniquitous and harsh fate, he and we, found ourselves engulfed in a slimy patch which, as if it were the Orchard of Jealousy or the Garden of Delights, was bounded both hither and thither by high walls; and since there was no light at all to guide us, we could not distinguish the road already passed from the one we had yet to follow; we only hoped that each

> step would bring the end: ever sinking knee-deep into the liquid mire, we fell toward deep dark Avernus [entrance to Hades]." (AWS 113 – 1)

And a little bit later:

> We would have gone home from there since Master Mud and Master Sludge had shod us with such boots that we could hardly move our legs. Besides, the rules of odorancy and the series of omens advised us that it would be unwise to continue our journey. The stars, which all lay behind a dark, obscure mantle, leaving the air foggy, impelled us homeward. The hour dissuaded us from going on, and exhorted us to turn back, while he proximity of the [Nolan's] place benignly applauded the exhortation. (AWS 115)

Bruno invites us to read this as an allegory of the people of England, excluding the aristocratic circle around Sir Philip Sidney:

> But now, the bulk of the common people presents itself most importunately before my eyes; they are such a stinkhole that, if they were not mightily suppressed by the [above-mentioned] others, the would send forth such a stink and such an evil reek as would darken the name of the whole population, to the extent that England could boast a people which in irreverence, incivility, coarseness, boorishness, savagery, and ill-breeding would yield nothing to any other people the earth might nourish on its breath. (AWS 120)

Unfortunately, some of the aristocratic and supposedly learned participants were not described in much more favorable terms. Recall:

> What is the object of this banquet, this supper? Not only to consider the mind and accomplishments of the most noble and well-born Sir Fulke Greville, in whose eminent house we met; not only to consider the honorable customs of these most urbane gentlemen who were present as spectators and listeners, but mainly to see what Nature can do in creating two ghastly harridans, two dreams, two ghosts, two quartan agues. (AWS 68)

Nature includes a lot that is quite horrible. And there are of course far more disturbing

examples that come to mind.

We should keep in mind the ambivalence of such a post-Copernican vision. There were those who, like Bruno, rejoiced in the way the cosmos seemed to have opened up, who felt that they had been released from a prison. But the loss of the center threatens to leave us spiritually adrift.

5

As already pointed out, it is impossible to reconcile Bruno's insistence that what is is what was, that what was is what is, that there is nothing new under the sun, with the Christian understanding of history, which to Bruno must have seemed subject to the same blindness that prevented geocentrists from recognizing the achievement of Copernicus. But we must keep in mind that Bruno claims to be beyond Copernicus: Copernicus, after all, represents only the dawn, while Bruno belongs with the day. And in astronomy the shift from dawn to day would seem to mean the shift from a heliocentric system to one that knows no center at all and, precisely because of this, generates a tolerance for infinitely many "centers." Bruno's cosmos is not a system ruled by some central body. And if the authors of the introduction are right and Bruno's cosmology functions also as a political metaphor, then the politics appropriate to it would seem to call into question the strongly centered absolutist state, so characteristic of early modernity, just as it would call into question a strongly centered Church. And yet, in keeping with the solar metaphor, Bruno, As we have seen, dreams of just such a state, ruled by an enlightened monarch. Perhaps we should say, Bruno's philosophy invites us to understand that state as in need of a lie, hopefully a noble lie. Think of the Hermetic rhetoric of the Sun King, which the French court was happy to appropriate, without giving much thought to the Hermetic philosophy behind it (AWS 27). Bruno's cosmological paradigm would seem to call for a withering away of the state, but Bruno was of a different mind: given his low opinion of most human beings, would such a withering of the state not lead to anarchy and anarchy transform the world into a stinkhole? Bruno was all too aware of that possibility.

18. Political Implications

1

I suggested that the problem of space for Bruno is also a problem of ethics. And more especially, it is a problem of freedom. In this connection it is interesting to note that Bruno appears to have been one of the first to plead for *philosophica libertas*, for freedom of thought. He did so in his valedictory oration to the professors at Wittenberg (1588). It was a concept that was eagerly picked up by others. Tommaso Campanella argued in his *Apologia pro Galileo* of 1622 at some length for the freedom to philosophize as one pleases. In his *Theology* he was to insist *sapientia quaerit libertatem animi*, wisdom seeks liberty of the mind. A few years before that Galileo had insisted that philosophizing needs to be free.[249]

This theme, too, has an Aristotelian root. Aristotle, as suggested in the very first session, explicitly links freedom and truth. But let me spend a bit more time on this connection. In what sense does the pursuit of truth demand freedom of thought? And keep in mind that the very word religion is, according to a widely accepted, if probably false, etymology tied to binding: does not religion bind freedom once again. And this raises the question: must the human being perhaps be bound in some way, as religion insists, bound by something other than reason? The latter is of course the position of the Enlightenment. Think of Kant. But is reason sufficient to bind freedom?

Let me return to the connection of truth and freedom. Recall the anecdote Plato tells us in the *Theaetetus* about Thales, which I discussed in our very first session, where Plato's Socrates here is speaking not only of Thales, but of all true philosophers: they all have little interest in the city and its affairs, are apolitical in this sense.

> He [the philosopher] is not even aware that he knows nothing of all this, for if he holds aloof, it is not for reputation's sake, but because it is really his body that sojourns in the city, while his thought, disdaining all such things as worthless, takes wings, as Pindar says, 'beyond the sky, beneath

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[249] See John M. Headley, *Tommaso Campanella and the Transformation of the World* (Princeton: Princeton University Press, 1997), pp. 172-173, fn 109.

> the earth,' searching the heavens and measuring the plains, everywhere seeking the true nature of everything as a whole, never sinking to what is closest at hand.[250]

The philosopher dislocates himself, as Bruno had dislocated himself, literally and spiritually. Bruno thus never found a place that he could call home, drifting across Europe, even as he made numerous efforts to secure a position. But that seems like a concession he made to the world. Spiritually he was a seafarer and it is not surprising that, like Nietzsche, in many ways a kindred spirit, he should liken himself to Columbus. Consider once more:

> [if these men are so praised,] how shall we honor this man [the Nolan] who has found the way to ascend to the sky, encompass the circumference of the stars, and leave at his back the convex surface of the firmament? (AWS 88)

Bruno, to be sure, as we saw, places himself far above Columbus.

> The Nolan, in order to cause completely opposite effects, has freed the human mind and the knowledge which were shut up in the strait prison of the turbulent air. (AWS 89)

Nietzsche sensed in Bruno a kindred spirit. So in a letter to Heinrich von Stein, dating from May 22,1884, he thanks him for having sent him a volume of Bruno's poetry, writing "I have permitted myself to appropriate them, as if I had written them and for me… Yes, if you knew how rare it is that something that strengthens me still comes to me from without."

We find another reference to Bruno, quite different in tone, in *Beyond Good and Evil*, in Part II, called "The Free Spirit." Nietzsche here warns:

> 25. After such a joyous beginning a serious word should not go unheard: it is addressed to those who are most serious. Watch out you philosophers and friends of knowledge, and be on your guard against martyrdom.… Those forced to become hermits, the Spinozas and Giordano Brunos, always become in the end, and be it under the most spiritual masquerade, and perhaps without knowing it themselves, seekers of the most refined

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[250] Plato, *Theaetetus,* 173d-174a. Trans. Francis Macdonald Cornford.

> revenge and mixers of poison. Just dig open the ground of the ethics and theology of Spinoza.

But let me return to the connection between truth and freedom. The philosopher, I suggested, is trying to use his imagination and thought to free himself from the place in which he happens to find himself. Such dislocation and loss of place is essential to his search for the truth. To be bound to place is to be bound by a particular perspective. Pursuit of the truth demands a commitment to objectivity. Objectivity demands that I rise above everything that might bind my sight to a particular perspective, demands that I leave behind all such bonds. Truth demands freedom. It is therefore not so much the truth that will make us free, but freedom that will lead us to the truth.

Catholics, Calvinists, and Lutherans all found the freedom Bruno claimed more than they were willing to grant. So he has the rare distinction of having been formally condemned by the Calvinists of Geneva, by the Lutherans of Helmstedt, by the Catholics of Rome. He knew what he was talking about when he insisted that philosophers should be given the freedom to think and teach whatever their reason granted them. But we should not forget Nietzsche's warning.

2

Bruno understood himself as the sunrise of a new age of freedom. The problem of space becomes thus for Bruno also a problem of politics. The Copernican revolution is taken by Bruno to herald an age of enlightenment. Bruno, too, dreams of an age where human relations would no longer be based on power, but on free discussion, born of respect for the differences that inevitably divide persons and nations in so far they find themselves in different situations. One thinks of Habermas and his dream of a society that would realize such an ideal. But Bruno has too low an opinion of most human beings to think them capable of such enlightenment. The golden age that he envisions will be presided over by those few, who, like Bruno himself, have escaped the prison of limiting perspectives and false absolutes.

This allows Bruno to place himself above Copernicus as the rising sun is higher than the dawn. The sun that is rising is the truth. We will finally leave the Platonic cave and step unto the plain of truth. This also has political consequences. In tying his new

cosmology to his vision of a new golden age Bruno once again appropriates and extends the thought of the "divine" Cusanus. With Cusanus already the overcoming of geocentrism, a position held only because we human beings are caught in the natural illusion that lets us give an undue weight and significance to the place we happen to occupy, had an obvious political significance. He thus thought that what divided Christians, Moslems, and Jews was not what really mattered, but rather that pernicious tendency to elevate what is relative to a particular point of view into something absolute, where Cusanus in the 15th century was thinking of the Hussites, but by then also and even more of the Ottoman Empire, which had just taken Constantinople (1453), the Eastern Rome. Here the ending of *De Pace Fidei*.

> After these topics were discussed in the foregoing way with the wise [men] of all nations, there were exhibited very many books authored by those who had written about the observations of the ancients — excellent books, indeed in every language (as, for example, among the Latins Varro, among the Greeks Eusebius, who gathered examples of the diversity of the religions; and very many others). After these writings were examined, it was ascertained that the entire diversity among the religions lay in the rites rather than in the worship of one God. From all the writings, which had been collected in one, it was learned that since the very beginning all [men] have always presupposed God and worshipped Him in all their religious practices; nonetheless, because the simple people were oftentimes led astray through the adverse powers of the Prince of darkness, they did not always [attend] to what they were doing.
>
> Therefore, in the loftiest domain of reason a harmony among the religions was reached, in the aforeshown manner. And the King of kings commanded the wise [men] return and lead their nations unto a oneness of true worship and that administering spirits guide and assist them [in this undertaking]. Moreover, [He commanded] that thereafter [these wise men], having full power [to speak] for all [in their respective nations], assemble in Jerusalem, as being a common center, and in the names of all their [countrymen] accept a single faith and establish perpetual peace with

> respect thereto. So that the Creator of all, Who is blessed forever, may be praised in peace.[251]

We find essentially the same pattern of thought in Bruno. He, too, was aiming at religious harmony and unity, which would issue in an era of peace. Following Cusanus, Bruno, too, hoped that right thinking would put an end to religious strife, where he was thinking first of all of wars that pitted Christians against Christians. Soon such strife was to erupt in the Thirty Years War, the most destructive war fought in Europe until the 20th century.

As already pointed out, Bruno's hope to reconcile Protestants and Catholics is suggested already by the title, which refers to the Sacrament of the Eucharist or the Lord's Supper. Already with the Hussites this was an important issue, an issue that separated them from the Catholic Church. They insisted that bread and wine should be administered to all the faithful, challenging those who would reserve the wine for the priests. Cusanus made an effort to bring the Hussites back into the Church and he suggested the that there was no point to taking this issue too seriously:

> This sacrament, insofar as it pertains to the perceptible signs (provided faith itself be maintained) is not of such necessity that there is no salvation without it. For believing — and thereby eating of the food of life — suffices for salvation. And so with regard to the distribution of the sacrament: no law of necessity is imposed regarding *whether* or *to whom* and *how often* it ought to be administered to the people. Therefore, if someone who has faith judges himself to be unworthy to approach unto the table of the Supreme King, this humility ought rather to be praised. Likewise, with regard to the use and the ritual of the sacrament: whatever will seem to the leaders of the church to be the most useful for the circumstances in each given region may admissibly be ordained — provided that faith is always maintained — so that by means of a common

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[251] *Nicholas of Cusa's De Pace Fidei and Cribratio Alkorani,* translation and analysis by Jasper Hopkins (Minneapolis: Banning,1990), pp, 70, 71.

> law peaceful unity of faith may continue, no less intact as a result of diversity of rites.[252]

This of course raises the question: how much and what is necessary to preserve faith.

Bruno takes a different, much more antagonistic position to the ceremony, as the caricature at the end of the second dialogue, which I read you earlier, shows. For him it is a superficiality to be eliminated and so he ridicules it with his description of the ceremony of the cup that I already read to you. Let me here turn to the "amusing incident" that precedes it.

> One of us, who was given the lowest place, thinking that is was the head of the table, wanted, in his modesty, to go and sit where the head was. Consequently, a little while was spent in contention between those who, according to etiquette, wanted him to sit in the lowest place and him who, in humility, wanted to sit in the highest. At last Messer Florio sat across from a knight sitting near the head of the table; Sir Fulke to the right of Messer Florio; the Nolan and myself at the left side of Messer Florio, Doctor Torguato at the left of the Nolan, and Doctor Nundinio across from the Nolan. (AWS 126)

Its significance is of course to poke fun at etiquette and its understanding of the importance of place. There is no naturally low or high place. This has a cosmological significance in that it calls into question Aristotle's physics and astronomy. And as with Cusanus, it also has an ethical and political significance. Both must be kept in mind. Hierarchical thinking is under attack.

Consider the way Bruno concludes the Second Dialogue where he savagely attacks the Protestant practice of communion. Bruno insists on the superficiality of the kind of union achieved. It is an all too material union, Bruno suggests, lacking spiritual significance. Interesting, too, is the continued reliance on the rhetoric of high and low:

> But, since this custom remained only at the lowest tables and had disappeared from these others, if not for a certain more venial reason, let's

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[252] Ibid., p. 69.

> allow them to dine without further observation. Tomorrow we will speak of what occurred after supper. (AWS 127)

The educated, the circles to whom Bruno hopes to appeal, should be beyond such superficiality. Their Ash Wednesday Supper should celebrate a different, more genuinely spiritual kind of unity

To understand all that is at issue, we have to keep in mind how profoundly this contentious issue then separated Protestants and Catholics, and indeed Protestants and Protestants, the followers of Luther from those of Calvin, and these again from those of Zwingli. As the introduction puts it:

> It was entirely reasonable for Bruno to choose the Eucharist as the subject of his dialogue, as the debate over the nature of the Eucharist among various Protestant confessions and between Protestants and Catholics was one of the thorniest of the Reformation era. Was Christ physically present in the bread and wine? [Catholic position] Was the Real Physical Presence to be explained by the doctrine of transsubstantiation or by that of consubstantiation? [Lutherans] Was Christ only spiritually present? [Calvinists] Was the Lord's Supper simply a memorial service, Christ not being present either physically or spiritually? [Zwingli] (AWS 35)

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3

There is tension, I pointed out, between Bruno's emphasis on freedom, which suggests that his politics would tend towards democracy, perhaps towards anarchy, and his contempt for most human beings, so evident in the *Ash Wednesday Supper*. Bruno is not at all blind to the threat of chaos, of anarchy. For this reason he was made uneasy by Protestant teaching. All too often too much democracy turns the earth into what he called a stinkhole, such as Bruno found London to be. Bruno does not appear to have thought of the new age as one where most would or should be free. They needed some sort of lie to control them. Plato's noble lie comes to mind. Bruno, too, dreamed of enlightened rulers, dreamed of himself playing the part Plato attempted to play in Syracuse. There is thus tension between Bruno's celebration of freedom and his idea of kingship, just as there is tension between his idea of infinity and the solar metaphor he liked to employ.

And this tension makes it a bit difficult for me to accept without reservations the claim made by the authors of the introduction, who here follow the eminent historian Frances Yates, that Bruno had embraced the system of belief called Hermetic Neoplatonism or Hermetism. I do agree that much speaks for this claim and the Introduction musters some of the considerations. But I would also point out that one's reading of the solar metaphor changes when one is convinced that there are infinitely many suns, spread out in infinite space and time.

And if there is tension between Bruno's solar metaphor and his emphasis on infinity, there is tension in his understanding of infinity, which demands freedom, and his recognition that most human beings need their freedom to be bound. We find an analogous recognition in Nietzsche. And this raises the question, is a certain blindness, a certain self-deception, some noble lie, perhaps necessary to make the truth bearable? Do we perhaps need the binding provided by religion, or if not that at least its analogue, so that we will not perish over the truth?

4

As we have seen, in his understanding of the cosmos Bruno was greatly influenced by Cusanus' *On Learned Ignorance*. We become learned about our ignorance when we come to understand, not only that the earth is not at the center of the cosmos, that this is but a perspectival illusion, but when we learn to repeat this reflection over and over:

> Now, if we come to an understanding which is sufficiently wise and enlightened, so that we recognize that this apparent motion of the universe derives from the rotation of the earth, and if we consider, moreover, that the constitution of all the other bodies in the firmament is similar to that of this body, we will be able first to believe, and then to conclude rigorously, the contrary of that dream, that fantasy, that basic mistake which has given and will give rise to innumerable others. This error arises thus: From the center of [our] horizon, turning our eyes to all sides, we can reckon the magnitude of the distance from, between, and within those things which are fairly close to us; but beyond a certain limit, all things appear to be equally

> distant. In the same way, if we look at the stars in the firmament, we will be able to distinguish the differences in motions and distances of some of the closer stars, but those which are farther or very far away will appear immobile and equally distant and far away as to distance. [AWS 203, 204]

Bruno does not understand this infinite cosmos as a lifeless mechanism, but as full of life: Consider the fourth proposition of Doctor Nundinio, who wants to know what substance the immutable stars were supposed to be made of. The answer is expected:

> He [Bruno] answers that the other globes, which are earths, are not at all different from this one in kind; but [differ] only in being bigger and smaller, [just] as inequality occurs in many other species of animals through individual differences. At present he thought that those spheres which are of fire, such as the sun, are different in kind in the same way as heat and cold, intrinsic brightness and induced brightens. (AWS 154)

Nundinio starts laughing, accusing Bruno of having taken his account of other earths more or less like our own from the *True Tales of Lucian*, who meant to mock with it certain views he considered silly. If so, Bruno, retorts, Lucian was just demonstrating his ignorance, an ignorance he shared with his audience. And in reply he presents his own vision of the cosmos.

> I take it as understood that not otherwise than in animals which we recognize as such, its parts are always in continuous alteration and movement and have a certain ebb and flow, always absorbing something from the exterior and emanating something from the interior: just as nails grow, the fur, wool, and hair feed, skin mends, and hides harden; so in the same way, the earth receives the efflux and influx of the parts through which many living beings (manifest to us as such) show us their life in a different way. Thus it is more than plausible that, since everything participates in life, many and innumerable beings live not only within us but also in all composite things; and when we see something which is said to die, we must not believe that that thing dies, but rather that it changes and terminates its accidental composition and unity, since the things which we see incurring death always remain immortal. This is even more true of

> the so-called spiritual entities than of the so-called material and corporeal ones, as we shall show some other time. (AWS 156, 157)

Everything participates in unending life. Death — but that means also the individual — are not to be taken too seriously.

Bruno, as we have seen, explodes the much enlarged, but still finite cosmos of Copernicus. His cosmos is infinite, dynamic, ever changing. He thus rejects the thought of an unchanging firmament and he also offers an account of why we should not expect empirical evidence for the view he supports: such evidence would take observations extending over a long period of time. But since no one had believed that such observations would yield anything interesting, there seemed to be no reason to make them. Before such evidence can be expected there has to be a thinker who shows that what is sought for is plausible or possible. In this Bruno sees the significance of someone like himself, where we should note that the principle of cosmic homogeneity functions with Bruno as an axiom supported by an intellectual intuition. It is embedded in his metaphysics of nature.

Where that metaphysics differs from the then just emerging new science shows itself in Bruno's disdain for mathematics, which we have touched on a number of times. Here is another telling passage:

> Reflected and straight rays, acute and obtuse angles, perpendicular, incident, and plane lines, large or smaller arcs: aspects such as these are mathematical circumstances and not natural causes. It is one thing to play with geometry and another to verify with nature. It is not lines and angles which make fire heat more or less, but distance and nearness, long and short duration. (AWS 208)

On the last point Bruno is clearly mistaken. As the footnote explains, Bruno thought that the length of day determined the climate, that the elevation of the sun was unimportant. But mathematics is for him too insignificant to occupy a mature thinker, and so he reproached Euclid and Archimedes for having wasted their time in intellectual games, when more important matters demanded their attention.

19. The Crime of Bruno

1

As I pointed out in our very first session, Bruno was executed in horrifying fashion on February 17, 1600, the day after Ash Wednesday, after having been in prison for eight years. What was it that led the Church to condemn and burn him just then? Is the date significant? I pointed to the nihilistic implications of Bruno's cosmic vision. That this vision is incompatible with Church teaching is evident. There is an undeniable connection between Bruno's cosmology and the charges that the inquisition was raising against him, the charge that he was a heretic who disclaimed central tenets of the Catholic faith and the other charge, that he was a political trouble-maker who threatened the established order.

Consider once more one obvious consequence of the cosmology that has been advanced: according to it there are no privileged places in the cosmos. Certainly the earth is not such a privileged place. There are countless similar stars in Bruno's infinite universe. How then are we to understand the significance of Christ's death on the cross?

There is some tension between the infinity of space and the atomism Bruno defended. If space is infinite, can there be an absolute minimum. Will whatever is proposed as such a minimum not turn out to be infinitely divisible in turn? There is, no doubt, something attractive about the proposal that things be understood as concatenations of atoms, of elementary particles, however they are conceived. Such atoms would provide nature with something like a substantial substratum, a foundation. But how does faith in such a mfoundation agree with insight into the infinity of creation? There would thus appear to be some tension in Bruno's vision of nature just as there is in his ethics and politics. And not just in Bruno's: that tension may be constitutive of our reason, which demands centers and foundations and yet reaches for the infinite.

Atomism had of course a long prehistory: Democritus was an atomist; Epicurus developed these ideas; and Greek atomism was appropriated by the Roman philosopher-poet Lucretius in his *De Rerum Natura* (*On the Nature of Things*). It was rediscovered in 1417 by Poggio Bracciolini. Bruno's atomism is heavily indebted to Lucretius, where his atoms should not be thought of as simply physical. Like his cosmos, they are

animated. The things we observe are concatenations of these atoms. Consider once more this passage, which I read you at greater length before:

> Thus it is more than plausible that, since everything participates in life, many and innumerable beings live not only within us but also in all composite things [but, one might ask, must there be atoms, i.e. building blocks that are not divisible in turn? Can the thought of such minima be defended any more than the thought of a cosmic center, given the infinity of the cosmos? KH]; and when we see something which is said to die, we must not believe that that thing dies but rather that it changes and terminates its accidental composition and unity, since the things which we see incurring death always remain immortal. This is even more true of the so-called spiritual entities than of the so called material and corporeal ones, as we will show at some other time. (AWS 156-157)

Such a view of the cosmos makes it difficult to take the individual, and therefore death and the need for salvation, very seriously. In proto-Nietzschean fashion, Bruno overcomes the sense of contingency and the nihilism associated with it precisely by denying the existence of a personal God, who could have created other worlds, had he so chosen. The other side of this denial is the deification of the cosmos, which is described with adjectives once reserved for God: it is now said to be necessary, eternal, and infinite. Along with this necessity goes an understanding of the cosmos as a dynamic state that knows no final satisfaction. Schopenhauer's understanding of the world as will comes to mind. The life of the individual is but a configuration of simpler substances, a superficial phenomenon, transitory and quite insignificant.

But what sense then can we then make of the incarnation, and denial of the incarnation was one of the key charges that were raised against Bruno. Just as there are no cosmologically privileged places for Bruno, so here on earth there are no geographically privileged places, and similarly, it would seem, there are no historically privileged places. Does it make any more sense to speak of a beginning or end of history than it does to speak of a beginning or end of space? Again the question: what sense can we then make of incarnation and crucifixion? Here we come to the heart of what must have troubled the authorities about Bruno. It would appear that in Bruno's mind his

rejection of Christianity and his espousal of the Copernican system, which he expanded into the infinite cosmos, were inseparably bound together. The Inquisition recognized this and to the inquisitors the former was much more important than the latter. Is Nietzsche not right: does the infinity of the cosmos not cast us into an inhospitable expanse in which we are neither cognitively nor spiritually at home? And this question applies also to Bruno's vision of history.

2

As pointed out, it is impossible to reconcile Bruno's insistence that what is is what was, that what was is what is, that there is nothing new under the sun, with the Christian understanding of history, which Bruno must have thought to have been subject to the same blindness that prevented geocentrists from recognizing the achievement of Copernicus, where we must also keep in mind that Bruno claims to be far beyond Copernicus: Copernicus, after all, represents only the dawn, while Bruno belongs with the break of day. And in astronomy the shift from dawn to day would seem to mean the shift from a heliocentric system to one that knows no center at all and precisely because of this generates a tolerance for infinitely many centers. In that sense Bruno's cosmos is not a system. And if the authors of the introduction are right and Bruno's cosmology functions also as a political metaphor, then, as I pointed out, the politics appropriate to it would seem to call into question the strongly centered absolutist state, also a strongly centered absolutist church, both characteristic of early modernity. Yet Bruno, as we saw, dreams of an enlightened monarchy.

But let us shift from the political to the ethical, from the state to the individual. To repeat the question: Could it be that we are all in need of noble lies to defend ourselves against the unbearable truth that there are no centers, no foundations? Was Nietzsche perhaps right to say that we have art so that we might not perish over the truth, the truth that life is meaningless, that history has no more significance than a bunch of cats and dogs fighting, as the great pessimist Schopenhauer put it? Are we perhaps all in need of noble lies?

3

Why did the Church feel it had to execute Bruno? It has long been recognized that the Church connected Bruno with another Copernican of sorts, Tommaso Campanella — I mentioned him briefly in an earlier session — who at the time was in a prison in Naples. Both were thought to represent similar threats to the established order. Campanella saw himself as the Messiah of a new age, inspiring Calabrian peasants with his dreams of a communist, democratic, God-centered republic, based on the community of goods and wives. In the year 1600, relying on the authority of Joachim of Fiore, also on his own astrological observations, he expected the advent of the Age of the Spirit. Such expectation led him to incite Calabrian peasants to revolt against the Spanish authorities in 1598 and 1599.[253] As Yates suggests, it is difficult not to see a connection between Campanella's imprisonment and torture in Naples and his fellow Dominican's execution in Rome.

And yet there is also a profound difference between the two. Campanella escaped execution, although not torture and 27 years in prison, although politically he had been much more active. And Campanella was in fact never a committed Copernican. He did defend Galileo, but he was quite willing to waffle on the issue, at least in public. It did not seem to have mattered to him very much. Indeed Copernicus does not seem to have been all that much of a concern. Columbus and his discovery of a new world seemed more important. Campanella was, however, a committed millenarian. This does link him to Bruno, who also longed for and hoped to help bring about a new political order. But Bruno's own understanding of space and time makes it difficult to speak of the age whose coming he awaited so impatiently as the millennium that would mean the end of history.

What is millennial thinking? Millennial thinking thinks of a succession of ages culminating in a final and golden age in which history reaches its fulfillment and comes to a glorious end. Such millennial ideas were common in the Middle Ages. Joachim of Fiore (1135-1202), whose thought Campanella appropriated, thus thought history in terms of three ages, the age of the father, the son, and the holy spirit, as a history of the

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[253] Headley, *Campanella*,, p. 3. See also Yates, 360-397.

progressive descent of the divine into the human. Mediated by Lessing, Hegel's understanding of the progress of history still owes a great deal to this milllennial schema, as does the thinking of Marx. But such a schema requires that there is a sense in which history does come to an end. Just this Bruno's understanding of both the cosmos and history denied.

Eschatological ideas have resurfaced again and again.[254] They flourished especially in the years just preceding 1600, thought to "be particularly important, owing to the numerological significance of nine and seven, the sum of which is sixteen. In the coming dispensation there will be established a better religious cult and better moral laws, both based on nature and natural religion."[255]

But Bruno's thinking is much more pagan than that of Campanella. As we have seen, for Bruno, as for Aristotle, the cosmos has no beginning. There can therefore not be a progress covering the whole of history. Bruno thus does not anticipate Hegel, who would have us understand Descartes as the sailor who finally reaches *terra firma*. According to Bruno there can be no *terra firma* in that sense. That is true of the cosmos and it remains true when the thought is extended to history. With this, however, the promise of a final golden age is put into question and, just as there is something terrifying about the infinite cosmos, so there is something terrifying about this vision of history, which only knows the unending and therefore finally pointless succession of dark and light.

This suggests also that we should think perspectival illusion not just with respect to particular places, but also with respect to particular times. We can thus speak of the Copernican revolution being raised to a higher level, or perhaps being transposed into a different key. This is true not just of the vision of the cosmos that Bruno gives us; it is also true of the historical vision of which we get glimpses. We can say: just as the eye is subjected to its spatial location, so reason is subjected to its temporal location. Bruno invites us to struggle against both. But there can be no final victory of truth.

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[254] See Norman Cohn, *The Pursuit of the Millennium,* 2nd edition (New York: Harper Torchboooks, 1961).
[255] Yates, Bruno, p. 364.

4

I pointed out how much Bruno owed to Cusanus. There is however this decisive difference: according to Cusanus the infinity of the cosmos is not infinity in the full sense of the word. From the absolute infinity of God the created infinity of the cosmos remains infinitely distant. Behind that insistence lies the thought that God is unable to create anything equal to himself, just as he is not capable of doing away with himself. According to this traditional view God's creativity does not exhaust itself in what he creates. As Ockham puts this point: God could have created many things that he did not will to create. Creation, on that view, is radically contingent.

Bruno challenges such views and relies on what Lovejoy in *The Great Chain of Being* calls the principle of plenitude.[256] On this view creation is the full manifestation of the infinite divine essence. In keeping with that infinity it had to be itself infinite. All that God could create he did create. A voluntarist conception of an all-powerful deity is here rejected. Rejected, too, is the idea of the contingency of the world: creation could not have been other than it is. The universe comes to be understood as the fully adequate self-reproduction of God. On this view creation is the necessary unfolding of the infinite divine essence. There is no place in this vision for a personal creator. Nor is there a need or even a place for the incarnation, as Bruno was ready to tell the inquisitors.[257] That they could not accept this is evident.

Cusanus was aware that his doctrine of learned ignorance, which admonished human being to keep in mind the way their point of view limited their perspective, not only liberated human beings from false absolutes, but also threatened to deny human beings the measures and rules they needed to live successful lives. For that reason he placed such weight on the incarnation, and on this point an abyss separates Cusanus and Bruno, who is likely to strike us as much more modern. According to Cusanus only the incarnation, the descent of the Divine Word, the Logos, into the world, provides human beings with a measure, even as it provides history with its center and fulcrum. Neither can be understood by our reason. Bruno had to reject this. His intuition of an infinite

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[256] Arthur L:ovejoy, *The Great Chain of Being* (Cambridge: Harvard University Press, 1964), pp. 116-121.
[257] See *Documenti veneti*, XI, pp. 712-713.

cosmos, thought as the completely adequate unfolding of the divine essence, so adequate indeed that the difference between God and the cosmos finally disappears, cannot be accepted by such a religion.

And we should not think that there is an incompatibility only between Christianity and the thesis of infinite worlds. In this connection Hans Blumenberg quotes the Jewish scholar Franz Rosenzweig, who insists on the absolute incompatibility of such a view and all revealed religion:

> [the difference between pagan thought and any revealed religion is] that for pagan thinking there are many worlds and possibilities, reasons and accidents, for [revealed religion] everything is given only in one exemplar. For revelation founds an up and a down, a Europe and an Asia, as it founds an earlier and a later, a past and a future. The infinite descends to earth and from the place of its descent it draws boundaries in the ocean of space and in the river of time.[258]

It was precisely the thought of the necessity of such a descent that led Cusanus to place such emphasis on his Christology.

But, to give this another turn, something like this descent is experienced by anyone who really falls in love with another human being. The beloved, as Kierkegaard knew, is experienced as unique. In this person the infinite descends to earth, our life gains a center. And does something similar not happen when I experience a great work of art, when I listen, say, to Schubert's last string quintet. But I cannot develop this here. What should be clear is that Bruno returns to what Rosenzweig considers a pagan view, although Bruno's pathos of infinity cannot be understood without the prehistory of Christian speculation on the infinity of God.

5

By now it should have become clear just how Bruno's vision of the cosmos and his denial of central dogmas are tied together. Consider once more the dogma of the

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[258] Franz Rosenzweig, *Briefe*, Berlin, 1935, p. 211, quoted by Hans Blumenberg in *Die Genesis der kopernikanischen Welt* (Frankfurt am Main: Suhrkamp, 1975), p. 439, fn. 146.

incarnation which Bruno had challenged already as a young monk and which was at issue in his final condemnation. We should keep in mind what dignity that dogma could give to man: did God not create the world for us, for us to know, enjoy, and dwell in? Here is the crucial verse:

> *Genesis*: 1: 26: Then God said, "Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth, and over every creeping thing that creeps upon the earth."

To be sure, pride let us lose paradise and the right to such dominion. But that loss is said to be undone by Christ who died for us. As Luther's fellow reformer Philipp Melanchthon put it, "For all things that are said of the dignity of man are to be said only of Christ, in whom we have recovered that dignity lost by Adam. It is a great thing therefore to believe that Christ is Lord and master and to believe that all things are subject to us."[259] The dignity of man derives from the dignity of Adam to whom all things were subjected, who was created, to use now the Cartesian phrase, to be the master and possessor of nature. That dignity, to be sure, humanity lost with the fall. But according to the reformer, faith in Christ can restore to us, that is to say can restore to us Christians, that dominion over all things that Adam had. This interpretation was to lead to a much more aggressive stance towards nature, a more exploitative attitude, and not just towards nature, but towards other human beings. Think of the way the Indians were treated in the New World, a fact noted and deplored by Bruno. We should keep in mind that our technological world, which looks at nature first of all as a source of materials, has one root in a line in the first chapter of *Genesis*.

Bruno's vision of the cosmos calls into question such an anthropocentric, or here rather Christocentric understanding of nature, as it threatens to undercut not only the doctrine of the incarnation, but every anthropocentrism. But with this the Copernican revolution has to call itself into question, for that revolution depends on the confidence that God created the world so that we might understand it, that our cognitive capacities

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[259] Hans Blumenberg, *Die Genesis der kopernikanischen Welt* (Frankfurt am Main: Surkamp, 1975), p. 393, fn. 110, citing Philipp Melanchthon, *Commentarius in Genesin* II, *Corpus Reformatorum* XIII: 774.

are such that we are able to seize the truth about nature. But how is such a cognitive anthropocentrism to be justified? We shall take up this question in the remaining sessions on Galileo.

20. The Power of Mathematics

1

Whenever science and religion collide the condemnation of Galileo is almost inevitably mentioned as the most obvious example of the Church abusing its authority by trying to subject science to its authority, thus denying the freedom that is demanded by the pursuit of truth, that philosophical freedom on which Bruno explicitly insisted. It is also cited to illustrate the futility of all such attempts. In the end the truth will win out.

And in the end the Church was forced to capitulate and accept the truth represented by Galileo. In 1820 the Catholic astronomer Joseph Settele was allowed to teach the earth's motion as an established fact, in 1822 books teaching this were allowed to be published, in1835 Galileo's *Dialogue Concerning the Two Chief World Systems*, condemned in 1633, was omitted from the list of forbidden books. On November 10, 1979 Pope John Paul II, on the occasion of a speech celebrating the centenary of Einstein's birth, admitted that Galileo had been treated unjustly by the Church and praised his religiousness and explicitly his understanding of the relationship of science and religion.[260] Here then we would seem to have the most famous example of the futility of all attempts to stifle free and independent inquiry in the name of orthodoxy. The autonomy of science needs to be protected. And attempts to stifle it inevitably fail in the long run. The truth will win out. And is this not what St. Thomas already taught: that there is only one truth and that when science really establishes a truth it cannot contradict Scripture? So let us not repeat the errors of the past. The question this raises, to be sure, is: what does it mean to "really establish a truth"?

Was the Church really as blind as even Pope John Paul II appears to suggest? Let us take a closer look at just what was at issue and at the claims defended by each side in this controversy.

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[260] Finocchiaro, pp. 306-308.

2

More often than anyone else Galileo is mentioned as the or at least a founder of our modern science of nature. And in this connection the way he joined an emphasis on mathematics to an emphasis on experience and experiment is inevitably mentioned. I want to begin our discussion of Galileo with the former. Here a passage from the *Assayer* (1623):

> Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend such language and read the letters in which it is composed. It is written in the language of mathematics and its characters are triangles, circles, and other geometric figures without which it is humanly impossible to understand a single word of it; without these, one wanders as in a dark labyrinth.[261]

It has become fashionable to speak of the Platonism of Galileo and of the new science. We owe this view especially to Ernst Cassirer.[262] And there certainly is something right about that view: if, as I suggested, one of the main obstacles standing in the way of modern science was Aristotle's philosophy of nature, it is also true that Plato with his emphasis on mathematics — especially in the *Timaeus* — offered a more congenial philosophy to the new science. Consider once more that passage from Galileo's *Assayer* that claims that "philosophy is written in this grand book, the universe." To write this book God used the language of mathematics. Plato, to be sure, would have had some difficulty with this passage, which better fits Pythagoras. As Cassirer points out, Plato did not think that that philosophy was written in nature. According to him it was written in the minds of men. This prompts Cassirer to speak in the case of Galileo of

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[261] Galileo, *The Assayer,* in *Discoveries and Opinions of Galileo*, trans. and intro. Stillman Drake (New York: Doubleday Anchor, 1957). p. 237-238.

[262] Ernst Cassirer, *The Individual and the Cosmos in the Renaissance*, trans. And intro. Mario Domandi (New York and Evanston: Harper and Row, 1964). pp. 168-169. See also Cassirer, *Das Erkenntnisproblme in der Philosophie und Wissenschaft der neueren Zeit,* 4 vols. (Darmstadt, Wissenschaftliche Buchgesellschaft, 1994), pp. 377-418.

a Platonism "of a new and paradoxical nature... Never before had such a Platonism been maintained in the history of the philosophy of science."[263]

What exactly was it that made it so new and paradoxical? In answer one can point out that much of Plato's philosophy seems to circumvent nature. Think of Plato's Socrates, who regretted the time he had spent studying the philosophy of nature with Anaxagoras. Plato's doctrine of recollection suggests that truth can be found in the mind. Within itself the mind finds access to the invisible cosmos of the ideas. Implicit in Platonism is a tendency to downgrade the material world, which is of course informed by the forms — consider once more the creation account in the *Timaeus* — but also always offers a certain resistance to such formation. The forms are never completely victorious in the material world. Plato thus thinks in terms of the opposition of matter and form. This, as I noted before, easily leads to a certain demonization of the material and sensuous, which is seen as a force that alienates us from our true spiritual home, drags us down into time.

Just on this point, as we have seen, there is a decisive difference between the Christian and the Platonic vision of nature. If God is omnipotent, if he is the creator of all that is, then there can be nothing outside his creative power. Then it makes no sense to speak of some extraneous material resisting his power. In this respect Galileo's view that nature is a book written in the language of mathematics is as much a Christian as a Platonic thought, although such a Christian Platonism also has to bring to mind Pythagoras.

3

What then bothered the inquisition about Galileo's views? We should keep in mind that Pope Urban VIII, before becoming pope in 1623, had known Galileo in Florence and had admired the man and his work. And he was pleased when Galileo dedicated the *Assayer* (1623) to him. To be sure, by then Copernicus's *De Revolutionibus* had been put on the Index of forbidden books. According to Finocchiaro, the humanist pope

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[263] Cassirer, "Galileo's Platonism," *Studies and Essays in the History of Science and Learning in Honor of George Sarton* (New York: Schumann, 1946), pp. 277-297.

> interpreted the decree of the Index to mean that the earth's motion was a dangerous doctrine whose study and discussion required special care and vigilance. He thought the theory could never be proved to be necessarily true, and here it is interesting to mention his favorite argument for this skepticism, an argument based on the omnipotence of God: Urban liked to argue that since God is all-powerful, he could have created any one of a number of worlds, for example one in which the earth is motionless; therefore, regardless of how much evidence there is supporting the earth's motion, we can never assert that this must be so, for that would be to want to limit God's power to do otherwise.[264]

But even for this humanist pope Galileo went too far in pushing the claims of truth. This is communicated by the final sentence of June 22, 1633:

> We say, pronounce, sentence, and declare that you, the above-mentioned Galileo, because of the things deduced in the trial and confessed by you as above, have rendered yourself, according to this Holy Office, vehemently suspected of heresy, namely of having held and believed a doctrine which is false and contrary to the divine and Holy Scripture: that the sun is the center of the world and does not move from east to west … and the earth moves and is not the center of the world, and that one may hold and defend as probable an opinion after it has been declared and defined contrary to Holy Scripture.[265]

As the quote from *The Assayer* demonstrates, Galileo was convinced that there is a certain similarity between divine and human knowledge. That similarity is greatest when human knowledge turns to mathematics. When we think the truth of a mathematical proposition we participate in the thoughts of God. God wrote the book of nature in the language of mathematics and we are capable of reading that book. Galileo's Christian Platonism is inseparably joined to a humanist anthropocentrism. Human and divine mathematics is essentially the same; this is not changed by insisting that God knows

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[264] Maurice A. Finocchiaro, *The Galileo Affair; A Documentary History* (Berkeley, University of Calif, Press 1989), "Introduction," pp. 32 - 33.
[265] Ibid., p., 291.

infinitely more and that he intuits in a moment what may take us a life-time to know. But there is no fundamental incapacity that prevents the human knower from understanding nature.

But what justifies this humanist faith in the power of human reason?

4

Descartes, as I pointed out, attempted to secure this trust in reason and the power of mathematics. Already in the early and never completed *Rules* (written until 1629) he promises an escape from the labyrinth of appearances. He there argues that we possess intuitions that are free from the distortions of perspective. Descartes ties such intuitions to an apprehension of simple natures. The intuition I have of my own being is said to be of that sort; so is my intuition of extension; or of equality. We should note that, no matter what the examples, by their very simplicity such simple natures cannot leave us in doubt about what they are: we either grasp or fail to grasp them; we cannot grasp them falsely or partially. We should note also that the intuition by which we grasp them must be very different from sight: for whatever we see is always seen from a particular point of view. What we see is inevitably not seen as it is. Sight presents us only with one of many possible aspects. And the same is true of the other senses. Descartes ' simple natures cannot, by their very simplicity, be construed as *sensibilia*, must be *intelligibilia*.

Descartes goes on to suggest that the way to escape from the labyrinth of perspective is to represent or reconstruct the seen in terms of these simple natures. The turn to simple natures implies thus a devaluation of ordinary sense-bound experience. It suggests that to gain proper access to reality we first have to transform ourselves into thinking subjects. This is not to say that we can dispense with experience. Experience has to offer us our data. Observation is crucial for Descartes, as it is for Galileo. But what experience has to offer us needs to be re-described in a language that by its form assures us that we are not victims of appearance. That language will attempt to eliminate words that presuppose our senses and their distortions. It will therefore have no room for secondary qualities, for sights or smells. Remember the extent to which Aristotle's physics depends on secondary qualities, on notions like dry and moist, hot and cold. Here his table of elements:

	Dry	Moist
Hot	Fire	Air
Cold	earth	Water

Aristotle also believed these elements to stand in a relation of heavier and lighter. But this he considered of secondary importance. The new science will reverse that priority. Such secondary qualities as hot and cold, dry and moist, belong to the order of appearances and a science that takes them too seriously will condemn itself to an only superficial understanding of reality.

All I want to emphasize here is that the superiority of the new over the old science is based not so much on particular insights into what is the case, but rather on a change in its form of description — where we may not forget the price at which such superiority is bought: it has to cover up what Husserl calls the life-world, bring with it an enormous reduction both of experience and of being, a reduction that leaves no room for meaning or value in the domain of scientific truths.

But does the very fact that the new science hopes to escape from the labyrinth of appearances by means of an inward turn to simple ideas present in the human mind not suggest the danger that this turn will let it lose touch with reality, that the world created by the new science will prove a mere fiction, having no more claim to truth than would a work of art. Such fictions would give us no power over the world we live in. But it is precisely such power that Descartes seeks and promises us in the *Discourse on Method*. What justifies his confidence that science does in fact provide us with more than fantastic fictions?

A first answer is given by what one can call Descartes' pragmatic turn, which invites us to think the scientist in the image of the craftsman, whose know-how presupposes an insight into reality very different from that of the Renaissance magus. In the *Rules* already Descartes admonishes us that science should not rest content with mathematical, but should progress to mechanical models. That represents a development of Galileo's turn to experience and experiment: we can understand reality only to the

degree that we can recreate it, and recreate here means recreate it not only in thought, but in fact. Mathematics offers us indeed one mode of re-creation, but our mathematical models of reality are not genuine re-creations of it: reality has to do with cause and effect. To understand reality, we have to know what causes bring about what effects. Descartes therefore insists on the construction of mechanical models. Such models, he suggests, let us understand "how all the motions of the other animals can come about, though we ascribe to them no knowledge at all, but only fancy of a purely corporeal kind. We can explain also how in ourselves those operations occur which we can perform without any aid from reason."[266] Nature can be understood to the extent that it can be represented by mechanical models[267] and Descartes is convinced that such understanding will extend to biology. All the natural sciences are in principle reducible to mechanics, that is to say to physics.

But once again the question returns: what if these so-called simple natures are our own inventions, fictions that exist only in our minds? What if the demand for such simplicity is one that reality does not meet, if the simple natures of Descartes are only logical atoms to which no real properties of things correspond? We know that while Descartes worked on the *Rules* he read Bacon's *Novum Organum*[268] and what he read there must have struck him as a direct challenge to his program:

> The human understanding is of its own nature prone to suppose the existence of more order and regularity in the world than it finds. And though there may be many things in nature which are singular and unmatched, yet (the understanding) devises for them parallels and conjugates and relatives which do not exist. Hence the fiction that all celestial bodies move in perfect circles.[269]

This is a denial of the Galilean thesis that God wrote the book of nature in the language of mathematics. Descartes needed to defend that thesis against Bacon.

And here is another passage that demanded a response:

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[266] *Rule* VIII, HR I, p. 26
[267] See Gäbe, *Descartes Selbstkritik*, p. 90.
[268] See Gäbe, pp. 96-111.
[269] Francis Bacon, *Novum organum*, XLV

> The human understanding is of its own nature prone to abstractions and gives a substance and reality to things which are fleeting. But to resolve nature into abstractions is less our purpose than to dissect her into parts, as did the school of Democritus which went further into nature than the rest. Matter rather than forms should be the object of our attention, its configurations and changes of configurations, and simple action, and laws of action or motion; for forms are figments of the human mind[270]

And that goes also for mathematics; it, too, is considered by Bacon a figment of the mind. Consider this statement from the *Novum Organum*:

> The human understanding is unquiet; it cannot stop or rest, and still presses onward, but in vain. Therefore it is that we cannot conceive of any end or limit to the world; but always as of necessity, it occurs to us that there is something beyond: Neither again can it be conceived how eternity has flowed into the present day: for that distinction which is commonly received of infinity in time past and in time to come can by no means hold; for it would follow that one infinity is greater than another, and that infinity is wasting away and tending to become finite. The like subtlety arises touching the finite divisibility of lines, from the same inability of thought to stop.[271]

Galileo and Descartes thought that they had found in mathematics the exit from the labyrinth of appearances. Bacon understood, mathematics, too, as but an idol of the tribe. Descartes' confidence, which he shared with Galileo, that God wrote the book of nature in the language of mathematics was thus severely shaken.

The *Meditations* attempt to meet that challenge. To accomplish this, Descartes has to show that violence is not done to nature by such mathematization. Needed is a metaphysics or an ontology of nature, a determination of its being strong enough to support what Copernicus called the axioms of nature. Galilean science is in need of an

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[270] Francis Bacon, *Novum organum*, LI.

[271] Bacon, *Novum organum*, XLVIII. See Gäbe, *Descartes' Selbstkritik*, pp, 96-111. Cf. Descartes's letters to Mersenne of Jan. 23, 1630, Dec. 10, 1630 and May 10, 1632, AT I, 109, 195-6, and 251-2.

ontological foundation. Descartes hoped to provide this by showing that the being of nature is extended substance. If he is right, we have a clear and distinct idea of the being of nature as extension. And is geometry not based on extension? If the being of nature can indeed be shown to be extended substance, there can be no question of the applicability of mathematics to nature. The trust in mathematics would have been vindicated.

But what right does Descartes have to trust simple or now clear and distinct ideas? Bacon warns that human nature is liable to mistake its own fictions for reality. And Bacon quite expressly considers our intuition of infinitely divisible space, i.e. that idea, which Descartes thought he held clearly and distinctly, such a fiction. To meet that challenge, Descartes has to show that whatever I perceive clearly and distinctly is as I perceive it. Here there can be no gap separating the idea and what the idea is about, between the logical and the ontological.

Consider the simple steps that are to secure Descartes' method against the critique implicit in Bacon:

1. In order to gain an indubitable, unshakable foundation, Descartes proposes to doubt everything he had up to then taken for granted.

2. He establishes that foundation by reflecting on the *cogito*: I cannot doubt that I, a thinking thing, exist.

3. This leads to the discovery of a criterion of what is necessary if I am to truly know something: I must possess a clear and distinct representation of it.

4. But doubts return: Cannot even clear and distinct representations deceive?

It was to meet these returning doubts that Descartes thought he had to prove the existence of a God who is not a deceiver, securing thus his confidence that human thought is attuned to reality. Descartes' proof of God's existence is to provide his cognitive anthropocentrism with a foundation. Unfortunately, this whole chain of reasoning is not as strong as it would have to be to justify Descartes' faith that his method will make us the masters and possessors of nature. Do we have a clear and distinct idea of ourselves as thinking substance? And even weaker is the attempt to prove the existence of a God who is not a deceiver. Such a God may well be demanded if we are to know for sure that we are indeed capable of the truth. The proof that such a God exists

would secure what I have called the cognitive anthropocentrism of the Renaissance. But how can I even attempt to prove that such a God exists, unless I already have the right to trust my own clear and distinct ideas? Is it not precisely this trust the proof is supposed to secure? That is to say, either I am already convinced of the reliability of my clear and distinct ideas, and then I do not need God to shore up such conviction, or I am not so convinced; but in the latter case I can also not be sure that the clear and distinct ideas which I need to prove the existence of God can be trusted.

What then justifies Galileo's claim that the book of nature is written in the language of mathematics and that, since this is a language we can understand, we are also able to understand what is written in that book?

21. The Questionable Authority of the Eye

1

According to Copernicus two conditions must be met if a theory is to claim truth:

1. It must "save the appearances," that is to say, it must be supported by observation.

2. It must be in accord with what is understood to be the essence of nature.

Copernicus' theory, when we judge it by his own criteria, does not fare very well. His understanding of the essence of nature, with its insistence on uniform, circular motion, was soon rejected; and the available observations, too, did not argue strongly for his system rather than the Ptolemaic. The fundamental insight of Copernicus remained without anything like adequate observational support until the discoveries of Galileo; and only the development of physics culminating in Newton's work provided a determination of the essence of nature that provided something approximating the sort of foundation that Copernicus demanded.

But let me here return to the question of observational support. Some new support was provided already by the observations of Tycho de Brahe. Thus his observation of a new star showed that there was change in the superlunar realm, dealing a severe blow to the Aristotelian theory of nature. Of similar significance was his demonstration that the comets had to break through the shells of the old cosmology, although this demonstration was not always accepted. And one of those who in the end refused to accept it was Galileo.

In the *Letters on Sunspots* of 1613 Galileo seems to agree with those who argue, following Tycho's observations of 1577, that comets belong to the realm beyond the moon. He there suggests that Aristotle would have agreed with him and changed his opinion about the unchangeability of the superlunar realm, had the evidence available to Galileo, been available to him.

> For I am sure that he never took its inalterability to be as certain as the fact that all human reasoning must be placed second to direct experience. Hence they philosophize better who give assent to propositions that depend upon manifest observations, than they who persist in opinions

> repugnant to the senses and supported only by probable reasons. And as if to remove all doubt from our minds, a host of observations come to teach us that comets are generated in the celestial regions. (DOG 118-119)

But later, in 1618, when three comets appeared and the Jesuits accepted Tycho's position, Galileo was to defend with unwarranted vehemence the sublunar character of the comets. In the *Assayer* (1623) Galileo thus ridicules the Jesuit Orazio Grassi, who followed Tycho. Galileo insists here that comets are optical illusions.

> The fourth argument is an arbitrary invention of Tycho based on something which, in my opinion, he never observed and could not have observed. I am referring to the motions of the comets when they are in opposition to the sun. Now, if it is true, as I most certainly believe, that their tail always points away from the sun, then it is impossible for us see any of them when they are in opposition to the sun, since in this case their tail would be invisible.[272]

But what matters more to me here is Galileo's emphasis on direct experience. And it was in fact Galileo who, more than anyone else, provided the Copernican theory with observational support when his discovery of the moons of Jupiter seemed to offer a miniature model of the solar system. Consider these passages from the beginning of the *Starry Messenger of 1610 :*

> Surely it is a great thing to increase the numerous host of fixed stars previously visible to the unaided vision, adding countless more which have never before been seen, exposing these plainly to the eye in numbers ten times exceeding the old and familiar stars.[273]
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> In this way one may learn with all the certainty of sense evidence that the moon is not robed in a smooth polished surface but is in fact rough and uneven. Covered everywhere, just like the earth's surface with huge prominences, deep valleys, and chasms.[274]

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[272] *The Assayer,* in *Discoveries and Opinions of Galileo*, trans. and intro. Stillman Drake (New York: Doubleday Anchor, 1957). p. 191.
[273] Ibid. p. 27.
[274] Ibid. p. 28.

> Again it seems to me a matter of no small importance to have ended the dispute about the Milky Way by making its nature manifest to the very senses as well as to the intellect.[275]
>
> But what surpasses all wonders by far, and what particularly moves us to seek the attention of all astronomers and philosophers, is the discovery of four wandering stars not known or observed by any man before us. Like Venus and Mercury, which have their own periods around the sun, these have theirs about a star that is conspicuous among those already known, which they sometimes precede, sometimes follow, without ever departing from it beyond certain limits.[276]

2

But here I want to speak less of Galileo than of the telescope, and more generally of the extent to which the development of modern science depended on instruments. Think of the clock, the scale, the thermometer, and the like. The potential importance of quantification and therefore of such instruments had already been recognized by Cusanus in his little dialogue *De Staticis Experimentis*. The development of these instruments serves the demand for ever more precise quantification. Presupposed by the conviction that such quantification helps us to get closer to the truth is a determination of the essence of nature. Recall Galileo's claim that the book of nature is written in the language of mathematics, where we should note once more the anthropocentrism of this view. God wrote the book of nature in such a way that we human beings might understand it: mathematics provides us with proper access to nature.

I have mentioned clock and scale. Telescope and microscope are instruments of quite another sort: they promise to extend the power of human vision, to remedy its natural deficiency. They answer to a hope that human beings might actually see the real make-up of the cosmos. That such hope is not vain is suggested by Galileo *in The Starry Messenger* (1610):

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[275] Ibid.
[276] Ibid.

> Here we have a fine and elegant argument for quieting the doubts of those who, while accepting with tranquil mind the revolutions of the planets about the sun in the Copernican system, are mightily disturbed to have the moon alone revolve around the earth and accompany it in an annual revolution around the sun. Some have believed that this structure of the universe should be rejected as impossible. But now we have not just one planet rotating about another while both run the great orbit around the sun; our own eyes show us four stars which wander around Jupiter as does the moon around the earth, while all together trace out a grand revolution about the sun in the space of twelve years.[277]

Hope that with the help of the telescope we might actually see the make-up of the cosmos is a commonly held opinion in this period. Consider Joseph Glanvill's suggestion in *The Vanity of Dogmatizing* (1661) that Adam was able to see the truth of the heliocentric position:

> Adam needed no spectacles. The acuteness of his nature Opticks (if conjecture may have credit) shew'd him much of the Coelestial magnificence and bravery without a Galilaeo's tube. And 'tis most probable his naked eyes could reach near as much the Upper World, as we with all advantages of art. It may be 'twas as absurd even in the judgments of his senses, that the Sun and Stars should be so very much less, than this Globe, as the contrary seems in ours; and 'tis not unlikely that he had a clear perception of the earths motion as we think we have of its quiescence.[278]

Adam is thought to have been a natural Copernican. He is thought to have seen what we must recover with our art. But note also that our technology has given us eyes that are in an important way better than Adam's: he saw "near as much" as we do now. This is to say: with the aid of instruments, we moderns see more. The consequences of the fall have been undone by technological invention. "Galilaeus without a crime outsaw all

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[277] Ibid. p. 57.

[278] Joseph Glanvill, *The Vanity of Dogmatizing*, reproduced from the edition of 1661 (New York: Columbia University Press, 1931), p. 5.

Antiquity; and was not afraid to believe his eyes, in spite of the Opticks of Ptolemy and Aristotle."[279] We should note the recognition of the possibility of transgression. But, Glanvill suggests, there was no crime. That Galileo, too, was worried about such a construction of his achievement is clear from that passage in *The Starry Messenger*, where he speaks of his invention and what it allowed him to see.

> All these facts were discovered and observed by me not many days ago with the help of a spyglass I devised, after first being illuminated by divine grace.[280]

Galileo is eager to present his "discovery" of the telescope as a divine gift. — Later, Descartes, too, thinks it important to present his method as a divine gift.

As Galileo continues to tell his readers, his discovery of the telescope was really a rediscovery:

> About ten months ago a report reached me that a certain Fleming had constructed a spyglass by means of which visible objects, though very distant from the eye of the observer, were distinctly seen as if nearby.[281]

He perfected his first telescope until he got a magnification of more than thirty times.

What then did the tube show? How did it transform popular opinion. Let me quote again from *The Vanity of Dogmatizing*.

> That the heavens are void of corruption is supposal: But the tube hath betrayed their impurity; and Neoterick Astronomy has found spots in the Sun. The discoveries made in Venus, and the Moon, disprove the Antique Quintessence; and evidence them as coarse materials, as the Globe we belong to. The Perspicil as well as the Needle, hath enlarged the habitable World; and that the Moon is an Earth, is no improbable conjecture.[282]

The hope here is that the telescope is part of the story of mankind's coming of age — recall Bruno's metaphor for Copernicus, whom he calls the dawn of a new day. It is a thought Glanvill shares with Descartes and Bacon. The telescope is to free us from the

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279 Ibid.,
280 *Discoveries and Opinions of Galileo,* p. 28.
281 Ibid., p. 29.
282 Glanvill, *The Vanity of Dogmatizing*.

limitations imposed on us by our spatial location coupled with the weakness of our vision.

As a matter of fact, the telescope could not fulfill such expectations. As distances were overcome, new and much greater distances opened up; instead of granting a new security, it added to the sense of insecurity. Descartes was thus to insist that only the turn back to the self can give us a true *terra firma*, a true center. Osiander would no doubt have thought this an expression of pride: true security is to be found only in God, who is the true center of the cosmos and of our existence.

3

In the invention of instruments like the telescope the early modern period saw, quite rightly, one way in which the moderns had outdone the ancients. It is indeed an interesting question why the ancients did not invent the telescope. Presupposed by that invention is a suspicion of the fundamental inadequacy of the human eye. Such suspicion easily leads to attempts to improve its condition. Suppose you were convinced of the adequacy of your eye: there would be no reason to improve it. Or suppose you were convinced of the inadequacy of your eyes, but thought this a given fact, perhaps ordained as part of the punishment for Adam's fall. Again there would be an obstacle to attempts to improve human vision. Such attempts would suggest pride. The invention of the telescope thus presupposes an awareness of the imperfection of our eyes, an awareness of what, given our present condition, escapes our vision, an awareness that the now visible is only a small part of the potentially visible. It also presupposes a conviction that the eye's present condition is corrigible.

Skepticism and the telescope are thus linked. In the *Apology for Raymond Sebond* Montaigne considers whether we might not be missing senses. Would we, for example know that we lacked a sense of sight, if all of us had been born without it? Is the human being placed in a particularly favorable position to observe the universe? Are our sense organs particularly adequate? And what about human reason? The very fact that the Copernican system could effectively challenge the Ptolemaic, that Luther could challenge the traditional faith, that a Paracelsus could offer a new science of medicine that wanted to overthrow that of the ancients, shows to Montaigne the lack of evident, compelling

evidence to settle such matters. Crucial to such skepticism is a thought it shares with Copernicus: the insight into the eccentric position of the human observer and knower. But, as I pointed out, part of the humanist faith of Copernicus is the confidence that this place is not a prison. And to this confidence Galileo adds another: that the inadequacy of our senses need not be accepted as a natural condition; we can take steps to improve ourselves. The thought of the corrigibility of human nature, presupposed already by the medieval invention of eyeglasses, is thus closely linked to the idea of real progress, and this faith in progress has helped to shape the modern world.

The Aristotelian and Ptolemaic view of the cosmos had presupposed that the eye is able to reach the very limits of the cosmos, the firmament that enclosed all. The boundaries of the visible world were also the boundary of the real. But should one not look at the firmament as a perspectival illusion, as Bruno suggests, following Cusanus? The traditional cosmology had a ready answer to such questions: the firmament was needed to impart its motion to the subordinate spheres. But the Copernican revolution in astronomy also implies a rejection of the Aristotelian theory of motion. The firmament is no longer necessary. Thomas Digges thus extended the Copernican universe and made it infinite.

Galileo could pity Copernicus that he did not live long enough to actually see the proof of his system. And yet, if the universe is infinite, do we really get closer to grasping it as a totality. Will we ever escape from perspectival appearance? Is reality not in its very essence invisible, to be grasped only by the spirit and not by the eye? Galileo's confidence in the eye is thus suspect, and such suspicion could use arguments as old as Plato. And, as I pointed out, attempts to improve the eye, to construct glasses, let alone instruments like microscopes and telescopes had to seem to many an arrogant transgression of something God himself had ordained. In the *Starry Messenger* Galileo dismisses such doubts.

4

But what did Galileo see with his telescope:

1. He greatly increased the number of fixed stars. This showed that what is visible for us does not exhaust the limits of the potentially visible. The visible becomes

an island in the potentially visible. And perhaps even the potentially visible is but an island in a reality the greatest part of which may remain forever invisible. We have here an important contribution to that progressive dissociation of the real and the visible that I suggested is part of our modern understanding of reality.

2. Galileo showed the moon to have an earthlike surface with mountains and plains. This provided empirical support for the belief in cosmic homogeneity, which is already so prominent in Cusanus' *On Learned Ignorance*. Consider this statement from *The Starry Messenger*:

> As to the large lunar spots, these are not to be seen to be broken in the above manner and full of cavities and prominences; rather they are even and uniform, and brighter patches crop up only here and there. Hence, if anyone wishes to revive the old Pythagorean opinion that the moon is like another earth, its brighter part might very fitly represent the surface of the land and its darker region that of the water. I have never doubted that if our globe were seen from afar, when flooded with sunlight, the land regions would appear brighter and the watery regions darker. The large spots on the moon are also seen to be less elevated than the brighter tracts, for whether the moon is waxing or waning there are always seen, here and there along its boundary of light and shadow, certain ridges of brighter hue around the large spots (and we have attended to this in preparing the diagrams); the edges of these spots are not only lower, but also more uniform, being uninterrupted by peaks or ruggedness.[283]

The difficulty which one has reconciling this thesis of cosmic homogeneity with Scripture is evident. This is brought out in a letter Giovanni Ciampoli wrote to Galileo:

> Cardinal Barberini, who, as you know from experience, has always admired your work, told me only yesterday evening that with respect to these opinions he would like greater caution in not going beyond the arguments used by Ptolemy and Copernicus, and finally not in exceeding the limitations of physics and mathematics. For to explain the Scripture is claimed by theologians as their

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[283] *Discoveries and Opinions of Galileo,* pp. 34-35.

> field, and if new things are brought in, even by an admirable mind, not everyone has the dispassionate faculty of taking them just as they are said. One man amplifies, the next one alters, and what came from the author's own mouth becomes so transformed in spreading that he will no longer recognize it as his own. And I know what he means. Your opinion regarding the phenomenon of light and shadow in the bright and dark spots of the moon creates some analogy between the lunar globe and the earth; somebody expands on this and says that you place human inhabitants on the moon; the next fellow starts to dispute how these can be descended from Noah's ask, and many other extravagances you never dreamed of. Hence to declare frequently that one places oneself under the authority of those who have jurisdiction over the minds of men in the interpretation of Scripture is to remove this pretext for other people's malice.[284]

Among the dogmas difficult to square with the thesis of cosmic homogeneity is, as we have seen, also that of the Incarnation. As Galileo understood cosmic homogeneity, it meant first of all an upgrading of the earth from its former lowly position to the level of the stars. Consider this passage from *The Starry Messenger*.

> Let these few remarks suffice here concerning the matter, which will be more fully treated in our *System of the world*. In that book, by a multitude of arguments and experiences, the solar reflection from the earth will be shown to be quite real — against those who argue that the earth must be excluded from the dancing whirl of stars for the specific reason that it is devoid of motion and light. We shall prove the earth, too, to be a wandering body, surpassing the moon in splendor, and not the sink of all dull refuse of the universe; this we shall support by an infinitude of arguments drawn from nature.[285]

We should remember here that for the Christian Aristotelian up meant better. The center of the system was also a place of evil, of the devil. There is a sense in which the medieval conception of the cosmos could be called diabolocentric. Galileo understands himself as arguing against such a diabolocentrism.

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[284] Ibid., p. 158.
[285] Ibid., p. 45.

3. A third discovery, less momentous in its implications, is the recognition that the Milky Way is just a conglomeration of stars. That, Galileo suggests, is also true of what had been called "nebulous stars." Again better observation supports the thesis of cosmic homogeneity.

4. By far the greatest importance is attributed by Galileo to his discovery of the moons of Jupiter, or, as he called them in honor of his patron to be, the Medicean planets. In his report on their discovery Galileo warned his readers that they would be able to duplicate his observations only if in possession of an instrument as good as his. A hostile reader might have taken this as an attempt to forestall criticism.

Kepler tells of his confused feelings when he receives the news that Galileo had discovered four new planets. Had he not argued in his *Mysterium Cosmographicum* that the spheres of the planets were separated by the five regular Euclidean bodies, which meant that there could be only six planets. The young Kepler had indeed once toyed with the idea of other planets, one between Jupiter and Mars, another between Mercury and Venus, but had given up on that idea. Hearing a sketchy report about four new planets and relying on the principle of homogeneity, Kepler now jumps to the conclusion that every planet must have its own satellite, Mercury's being too small and close to the sun to be visible. When he receives Galileo's text, he assumes that there must be other such moons and attempts to think up a principle that would account for their distribution. Note, how scientific speculation is here, too, governed by certain assumptions concerning the make-up of the cosmos. Like Galileo, Kepler believes that God wrote the book of nature in the language of mathematics. His speculations hark back to Plato's *Timaeus*.

Kepler's response should be compared with that of the head of the department of philosophy at the University of Padua, the much maligned Cesare Cremonini, who was in fact a friend of Galileo and as a committed Aristotelian also persecuted by the Inquisition. In a letter of May 6, 1611, he wrote that he would not look through the telescope; it would only confuse him. Giulio Libri, Galileo's colleague both at Padua and Pisa did the same, declaring the observations impossible. After Libri's death Galileo expresses the hope that the philosopher, who had refused to look at the newly discovered planets during his life, would see them at least on his way to heaven.

But how justified is Galileo's appeal to the eye. How reliable did he himself take the evidence of the eye to be? Did he himself not have doubts about the eye's reliability? It is interesting to consider once more Galileo's refusal to acknowledge that comets were, as Tycho de Brahe had demonstrated them to be, superlunar phenomena, rather like planets. In the *Assayer* he thus attacks those who want to make comets into planets and accuses them of trying to create facts simply by the power of the word: "If their opinion and their voices have the power of calling into existence the things they name, then I beg them to do me the favor of naming a lot of hardware I have about my house 'gold.' But names aside, what attributes induced them to regard the comet as a quasi-planet for a time?"[286]

Galileo's own view was that they arose from the earth, being produced by terrestrial vapors rising up into the sky and finally dissolving at immense distances. But what is interesting in this connection is that here Galileo himself argues against reliance on evidence presented to the senses.

> Your excellency will note the great confidence which Sarsi places in the sense of sight, deeming it impossible for us to be deceived by a spurious object whenever that may be set beside a real one. I confess that I do to possess such a perfect faculty of discrimination. I am more like the monkey that firmly believed he saw another monkey in a mirror, and the image seemed so real and alive to him that he discovered his error only after running behind the glass several times to catch the other monkey.[287]

We see only images, appearances. Before you can claim truth for them, we need a theory that accounts for them appearing as they do. And yet in *The Starry Messenger* Galileo himself appeals above all to the eye, aided by an instrument, without supplying the theory that would explain the telescope's effectiveness, as Kepler was to do with his optics. What justified Galileo's trust in the telescope? There is tension in Galileo's attitude to the eye.

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[286] Ibid, p. 255.
[287] Ibid.

22. Conflicting Claims to Truth

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At issue in the condemnation of Galileo, as in the other condemnations, is the problem of truth. Are we human beings capable of the truth or does the truth belong to God and do we human knowers depend for the truth on divine revelation? As did the Aristotelians who were condemned in Paris in 1277, Galileo does think human beings capable of the truth about nature. And here again observation is taken to be essential. Let me return to that passage from the *Letters on the Sunspots*, where Galileo imagines what Aristotle would have made of his discoveries:

> For I am sure that he never took its inalterability to be as certain as the fact that all human reasoning must be placed second to direct experience. Hence they philosophize better who give assent to propositions that depend upon manifest observations, than they who persist in opinions repugnant to the senses and supported only by probable reasons. And as if to remove all doubt from our minds, a host of observations come to teach us that comets are generated in the celestial regions.[288]

Galileo was to change his mind about the nature of comets. But he never doubted that human beings are capable of discovering the truth about nature and that observation played a key part in this discovery

But is this obvious? Consider once more Thomas Aquinas's much cited definition of truth: "Truth is the adequation of the thing and the understanding."[289] Truth is understood in terms of correspondence. Kant will later suggest that this understanding of truth is so obvious that it can be taken for granted.

Note that this claims that there is no truth where there is no understanding. But is there understanding without human beings? Is truth then relative to human beings? This would seem to imply that there can be no eternal truths. Or are there rational beings other than human beings? Despite the efforts of those who search for intelligence somewhere

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[288] *Discoveries and Opinions of Galileo*, pp. 118-119.
[289] Thomas Aquinas, *Questiones disputatae de veritate*, qu. 1, art. 1.

out there in space, so far all such efforts have been disappointed. For all intents and purposes we human beings appear to find ourselves alone here on this earth. To show that there are eternal truths, would we not have to show that the understanding, too, is eternal? That there always have been and will be human beings? But can this be shown? The fable with which Nietzsche, borrowing from Schopenhauer, begins "On Truth and Lie in an Extra-Moral Sense" comes to mind, quite representative of gloomy post-Copernican meditations on the immensity of the cosmos that would seem to make human existence no more than an insignificant cosmic accident:

> Once upon a time, in some out of the way corner of that universe which is dispersed into numberless twinkling solar systems, there was a star upon which clever beasts invented knowing. That was the most arrogant and mendacious minute of 'world history,' but nevertheless, it was only a minute. After nature had drawn a few breaths, the star cooled and congealed, and the clever beasts had to die.[290]

Nietzsche here calls attention to the disproportion between the human claim to truth and our peripheral location in the cosmos, to the ephemeral nature of our being. Will the time not come, when there will no longer be human beings, when there will be no understanding, and hence no truth? Thomas Aquinas, to be sure, like any believer in the Biblical God, would have had no difficulty answering Nietzsche. His understanding of God left no room for thoughts of a cosmos from which understanding would be absent. His was a theocentric understanding of truth. And does an anthropocentric understanding of truth really make sense? Heidegger could be taken as representative of such an anthropocentric understanding, which lets him deny that there are eternal truths.

Galileo considered himself a good Christian. The meaning of truth, for him, too, is inseparable from the thought that there is a timeless understanding, unburdened by perspective, which he, too, associated with God. There is no reason to doubt that Galileo was a good Catholic. And as such he believed that God created us in his image and that

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[290] Friedrich Nietzsche, "Über Wahrheit und Lüge im aussermoralischen Sinne," *Kritische Studienausgabe* (Munich: Deutscher Taschenbuch Verlag, 1980), vol. 1, p. 875. Trans. "On Truth and Lie in an Unmoral Sense," *Philosophy and Truth. Selections from Nietzsche's Notebooks of the early 1870's,* trans. and ed. Daniel Breazeale (Atlantic Highlands: Humanities Press, 1979), p. 79.

we are sufficiently godlike to be capable of the truth. In this sense we can ascribe a humanist anthropocentrism to Galileo, as to Copernicus and to Bruno. Part of this humanist anthropocentrism is the claim, familiar already to Aristotle, that human beings are capable of the truth. And Galileo, too, insisted that access to the truth requires that freedom of thought so important to Bruno. And that implied that other claim that access to the truth, at least to truth about nature, is not essentially mediated by a human institution, such as the Church — I shall have to come back to this restriction, which invites reflection on why the Bible speaks not just of the tree of knowledge, but of a knowledge of good and evil.

As we have seen by now over and over, such a claim had to bring Galileo in conflict with the Inquisition. By that time it had recognized more clearly the threat the new astronomy posed to its authority. Consider once more this passage from a letter by Giovanni Ciampoli, close to both Galileo and Cardinal Barberini and his secretary when the latter became Pope Urban VIII.

> Cardinal Barberini, who, as you know from experience, has always admired your work, told me only yesterday evening that with respect to these opinions he would like greater caution in not going beyond the arguments used by Ptolemy and Copernicus, and finally not in exceeding the limitations of physics and mathematics. For to explain the Scripture is claimed by theologians as their field, and if new things are brought in, even by an admirable mind, not everyone has the dispassionate faculty of taking them just as they are said. One man amplifies, the next one alters, and what came from the author's own mouth becomes so transformed in spreading that he will no longer recognize it as his own. And I know what he means. Your opinion regarding the phenomenon of light and shadow in the bright and dark spots of the moon creates some analogy between the lunar globe and the earth; somebody expands on this and says that you place human inhabitants on the moon; the next fellow starts to dispute how these can be descended from Noah's ask, and many other extravagances you never dreamed of. Hence to declare frequently that one places oneself under the authority of those who have jurisdiction over the minds of men

> in the interpretation of Scripture is to remove this pretext for other people's malice.[291]

The theologians claim to be the custodians of Scripture. Physics and mathematics should remain aware of their limitations and not trespass on that territory. Galileo was in danger of doing just that. How did he propose to deal with the apparent incompatibilities? Especially important here is Galileo's letter to Castelli of Dec. 21, 1613:

> In regard to the first general point of the Most Serene Ladyship, it seems to me very prudent of her to propose and of you to concede and to agree that the Holy Scripture can never lie or err, and that its declarations are absolutely and inviolably true. I should have added only that, although Scripture cannot err, nevertheless some of its interpreters and expositors can sometimes err in various ways.[292]

Galileo is prepared to grant that Scripture can never err, but he insists that the same is not true of its interpreters. Certainly what the Bible says cannot be understood literally:

> One of these would be very serious and very frequent, namely to want to limit oneself always to the literal meaning of the words; for there would thus emerge not only various contradictions, but also serious heresies and blasphemies, and it would be necessary to attribute to God feet hands, eyes, as well as bodily and human feelings like anger, regret, hate, and sometimes even forgetfulness of things past and ignorance of future ones. Thus in the Scripture one finds many propositions which look different from the truth if one goes by the literal meaning of the words, but which are expressed in this manner to accommodate the incapacity of common people; likewise, for the few who deserve to be separated from the masses, it is necessary that wise interpreters produce their true

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[291] *Discoveries and Opinions of Galileo*, p. 158.

[292] Maurice A. Finocchiaro, *The Galileo Affair. A Documentary History* (Berkeley: Univ. of Calif. Press, 1989), p. 49.

> meaning and indicate the particular reasons why they have been expressed by means of such words.[293]

Galileo leaves no doubt that where science and Scripture appear to conflict, it is the interpretation of Scripture that has to give way. Galileo here returns to the old ides of God's two books. Both nature and Scripture derive from the divine Word. But they speak to us in very different ways. And the latter often speaks to us in ways that conceal its most basic doctrine.

> Given this, and moreover it being obvious that two truths can never contradict each other, the task of wise interpreters is to strive to find the true meaning of scriptural passages agreeing with those physical conclusions of which we are already certain and sure from clear sensory experience and from necessary demonstrations.[294]

Galileo rejects anything like a theory of double truth. And he admonishes the Church to confine itself to claims that may not be called into questions by the future progress of science.

> I think it would be prudent not to allow anyone to oblige scriptural passages to have to maintain the truth of any physical conclusions whose contrary could ever be proved to us by the senses and demonstrative and necessary reasons. Who wants to fix the limits of the human mind? Who wants to assert that everything which is knowable in the world is already known? Because of this it would be most advisable not to add anything beyond necessity to the articles concerning salvation and the definition of the Faith, which are firm enough that there is no danger of any valid and effective doctrine ever arising against them.[295]

The human mind has no limits, even though no one can tell how much there still is to be known.

The authority of Scripture, however, is limited to what is necessary for our salvation and surpasses reason. And in this letter Galileo leaves no doubt that he thinks

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[293] Ibid., pp. 49-50.
[294] Ibid., p. 51.
[295] Ibid.,

science capable of the truth, although heliocentrism is here expressed in less than absolute terms. One has to wonder, however, how serious Galileo is here.

The Church, however, could seize on such passages to avoid open conflict. This is clearly the strategy used by Cardinal Bellarmine. A letter to Galileo's supporter Foscarini is of interest:

> Your Reverence and Sig. Galileo did prudently to content yourselves with speaking hypothetically and not positively, as I have always believed Copernicus did. For to say that assuming the earth moves and the sun stands still saves the appearances better than eccentrics and epicycles is to speak well. This has no danger in it and suffices for mathematicians.[296]

Bellarmine is using here the strategy of Andreas Osiander. Appealing to the authority of the Council of Trent Bellarmine makes the common consensus of the Church the measure of truth.

> I say that, as you know, the Council of Trent would prohibit expounding the Bible contrary to the common agreement of the holy Fathers. And if your Reverence would read not only all their works, but the commentaries of modern writers on Genesis, Psalms, Ecclesiastes, and Joshua, you would find that all agree in expounding literally that the sun is in the heavens and travels swiftly around the earth, while the earth is far from the heavens and remains motionless in the center of the world. Now consider, whether, in all prudence, the Church could support the giving to Scripture of a sense contrary to the holy Fathers and all the Greek and Latin expositors.[297]

But we should note that at this point Bellarmine is not willing to rule out categorically that heliocentrism might be true:

> Third, I say that if there were a true demonstration that the sun is at the center of the world and the earth in the third heaven, and that the sun does not circle the earth but the earth circles the sun, then one would have to

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[296] Ibid., p. 67.
[297] Ibid., pp. 67-68.

> proceed with great care in explaining the Scriptures that appear contrary, and say rather that we do not understand them than that what is demonstrated is false.[298]

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Galileo, although he sometimes showed himself a rather timid defender of the truth, could not accept this presentation of himself as a mere calculator who only wanted to save the appearances. Like Copernicus, he laid claim to truth. In this connection it is interesting to note that when he left his professorship of mathematics at the University of Padua to take up a position at the court of Cosimo Medici and a professorship at Pisa, he insists that his title be mathematician and philosopher. And the censure of 1616 makes it quite clear that it is a censure of Galileo the philosopher, not of Galileo the mathematician. Consider the Consultants' Report of February 24, 1616:

> (1) The sun is the center of the world and completely devoid of local motion.
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> Assessment: All said that this proposition is foolish and absurd in philosophy and formally heretical since it explicitly contradicts in many places the sense of Holy Scripture, according to the literal meaning of the words and according to the common interpretation and understanding of the Holy Fathers and the doctors of theology.[299]

Important here is the word "philosophy." On the next day the following warning is authorized:

> His Holiness ordered the most Illustrious Lord Cardinal Bellarmine to call Galileo [who here is called a mathematician, not a philosopher] before himself and warn him to abandon these opinions; and if he should refuse to obey, the Father Commissary, in the presence of a notary and witnesses, is to issue him an injunction to abstain completely from teaching or

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[298] Ibid., p. 68.
[299] Ibid., p. 146.

> defending this doctrine or opinion or from discussing it; and further, if he should not acquiesce, he is to be imprisoned.[300]

On March 5, as we have seen, both Copernicus' *On the Revolution of Spheres* and Galileo's friend Foscarini's *Letter on the Pythagorean and Copernican Opinion of the Earth's Motion* are placed on the index of forbidden books. The Church and Galileo at this point both seem eager to avoid a confrontation and thus trouble. This is clear from Cardinal Bellarmine's Certificiate of May 26, 1616.

> We, Robert Cardinal Bellarmine, have heard that Mr. Galileo Galilei is being slandered or alleged to have abjured in our hands and also have been given salutary penances for this. Having been sought about the truth of the matter, we say that the above-mentioned Galileo has not abjured in our hands, or in the hands of others here in Rome, or anywhere else that we know, any opinion or doctrine of his; nor has he received any penances, salutary or otherwise. On the contrary, he has only been notified of the declaration made by the Holy Father and published by the Sacred Congregation of the Index, whose content is that the doctrine attributed to Copernicus (that the earth moves around the sun and the sun stands at the center of the world without moving from east to west) is contrary to Holy Scripture and therefore cannot be defended or held. In witness whereof we have written and signed this with our own hands, on this 26th day of May 1616.[301]

3

In his heart Galileo knew he had to refuse Bellarmine's suggestion that he be content with the role of the mathematician. In a letter to Dini he states very clearly what is at stake:

> I should not like to have great men think that I endorse the position of Copernicus only as an astronomical hypothesis, which is not really true. Taking me as one of those most addicted to this doctrine, they would

[300] Ibid., p., 147.
[301] Ibid., p., 153

> believe all its other followers must agree, and that it is more likely erroneous than physically true. This, if I am not mistaken, would be an error.[302]

Galileo is here concerned not only for the truth, but also for his reputation as a defender of the truth. Given his investment in that image, it was difficult to avoid collision with a Church that since the days of Copernicus, let alone those of Cusanus, had grown ever more conservative. It was not reassured by a statement such as the following:

> To me, the surest and swiftest way to prove that the position of Copernicus is not contrary to Scripture would be to give a host of proofs that it is true and that the contrary cannot be maintained at all; thus, since no two truths can contradict one another, this and the Bible must be perfectly harmonious.[303]

Galileo was of course aware that the defender of the tradition would point to many apparent contradictions. The Bible does seem to assume a geocentric cosmology. If one accepts Galileo's position these "contradictions" can only be considered apparent. Consider the notes collected as “Galileo’s Considerations of the Copernican Opinion.”

> In regard to falsifying Scripture, this is not and will never be the intention of Catholic astronomers such as ourselves; rather our view is that Scripture corresponds very well to truths demonstrated about nature. Moreover, certain theologians who are not astronomers should be careful about falsifying Scripture by wanting to interpret it as opposed to propositions which may be true and demonstrable.[304]

The implications of such an assertion for theology are clear: science is capable of the truth. As a Catholic astronomer, Galileo is also prepared to grant the truth of Scripture, but he is not willing to grant that its interpreters have grasped that truth.

> It might happen that we could have difficulties in interpreting Scripture, but this would occur because of our ignorance and not because

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302 *Discoveries and Opinions of Galileo*, pp. 166-167.
303 Ibid., p. 166.
304 Finocchiaro, *The Galileo Affair*, p. 83.

> there really are or can be insuperable difficulties in reconciling Scripture with demonstrated truths.[305]

We should note the shift: while the theologians insisted that the truth claims of science be brought in accord with Scripture, the direction is now reversed: now our interpretation of Scripture has to accord with what science has to tell us. It is the natural philosopher rather than the theologian who has become the privileged custodian of truth. But this distinction between the real, although perhaps undiscovered meaning of Scripture, which is taken to be in principle compatible with the new science, and its apparent meaning, which may well be incompatible, threatens to make Scripture an uncertain guide to truth. How can we be sure that we have gotten hold of the real meaning of the Scriptural text and not just of an all too human and therefore fallible interpretation? Such questioning invites skepticism in matters of religion. Against such skepticism the Counter-Reformation insisted on the authority of the tradition. Recall once more Bellarmine's letter to Foscarini:

> Second, I say that, as you know, the Council prohibits interpreting Scripture against the common consensus of the Holy Fathers; and if your Paternity wants to read not only the Holy Fathers, but also the modern commentaries on Genesis, the Psalms, Ecclesiastes, and Joshua, you will find all agree in the literal interpretation that the sun is in heaven and turns around the earth with great speed, and that the earth is very far from heaven and sits motionless at the center of the world.[306]

According to Bellarmine it is this continuing tradition of interpretation that must be considered the guardian of truth. His is a consensus theory of truth. Galileo has a very different conception of truth. His notes on the Copernican Opinion are unequivocal.

> Astronomers have so far made two sorts of suppositions: some are primary and pertain to the absolute truth of nature; others are secondary and are imagined in order to account for the appearances of stellar motions, which appearances seem not to agree with the primary and true assumptions. For example, before trying to account for the appearances,

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[305] Ibid., pp. 83-84.
[306] Ibid, *pp*. 67-68.

> not acting as a pure astronomer but as a pure philosopher, Ptolemy supposes, indeed he takes from philosophers, that celestial movements all are circular and regular, namely uniform; that heaven has a spherical shape; that the earth is at the center of the celestial sphere, is spherical, motionless, etc. Turning then to the inequalities we see on planetary movements and distances, which seem to clash with the primary physical suppositions already established, he goes on to another sort of supposition; these aim to identify the reasons why, without changing the primary ones, there is such a clear and sensible inequality in the movements of planets and in their approaching and their moving away from the earth. To do this he introduces some motions that are still circular, but around centers other than the earth's, tracing eccentric and epicyclic circles. This secondary supposition is the one of which it could be said that the astronomer supposes it to facilitate his computations, without committing himself to maintaining that it is true in reality and in nature.[307]

Copernicus, Galileo recognized, claimed to offer more than such hypothetical constructions. Like Bruno and Kepler, he was another reader quick to recognize that Osiander's preface could not have been written by Copernicus:

> There is on the reverse side of the title page of Copernicus's book a certain preface to the reader, which is not by the author since it refers to him in the third person and is without signature. It clearly states that no one should believe in the least that Copernicus regarded his position as true, but only that he feigned and introduced it for the calculation of celestial motions; it ends its discussion by concluding that to hold it as true and real would be foolish.[308]

But Galileo is convinced that Copernicus was right to claim that the earth moved. Theology has to accept this claim:

> If the earth de facto moves we cannot change nature and arrange for it not to move. But we can rather easily remove the opposition with

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[307] Ibid, pp. 75-76.
[308] Ibid, *pp*. 78-79.

> Scripture with the mere admission that we do not grasp its true meaning. Therefore, the way to be sure not to err is to begin with astronomical and physical investigations and not with Scriptural ones.[309]

This truth is open in principle to any unprejudiced observer. And that truth is made the measure of all other claimants to the truth, and that includes theologians. The theocentric has yielded to an anthropocentric conception of truth.

4

The Church tried to force Galileo to acknowledge the priority of the theocentric conception and of its function as interpreter of Scripture. When Galileo wants to publish what was *On the Ebb and Flow of the Sea* and became his *Dialogue on the Two World Systems* the Roman censor thus insists on a number of additions:

1. On a preface that, rather like Osiander's preface to Copernicus's *Revolutions*, would make clear that truth is not claimed for the Copernican system.

2. That Galileo add to his theory of the tides a remark that God's infinite power could have produced the same effects in a manner very different from that suggested by Galileo's Salviati.

3. The conclusion of the work was to be in keeping with this insistence on divine omnipotence.

His theory of the tides was indeed quite mistaken, as was his theory of the comets. Here he trusted too naively terrestrial paradigms. I shall return to Galileo's blindness in our next session. Here something else matters: What Galileo was asked to surrender was his claim to truth, his status as a philosopher.

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[309] Ibid., p,. 82.

23. Insight and Blindness of Galileo

1

Why should The Inquisition have singled out Galileo's theory of the tides for special attention? What was Galileo's theory? According to Galileo the tides are produced by the motion of the earth both around its axis and around the sun. That motion, he believed, caused a periodic sloshing of the water, just as we can observe when we see someone carrying water in a basin. The tides, Galileo thought, offered an immediate and convincing interpretation of the motion of the earth.

Today this theory may seem an instance of Galileo's blindness, comparable to his theory of the comets. By that time Galileo knew of Kepler's essentially correct theory. Kepler had explained it in terms of his theory of gravity, that is to say, in terms of the mutual attraction of earth and moon. This argument, however, would have robbed Galileo of what he considered his strongest argument for the Copernican system. Kepler also posited an *actio in distans*, across the space separating the two bodies. To Galileo the very idea of such an *actio in distans* seemed impossible. Galileo therefore mentions Kepler's theory only to dismiss it. How much his own theory of the tides meant to Galileo is shown by the fact that he first wanted to call his dialogue on the two world systems *Dialogue on the Tides*.

The Church recognized this and therefore insisted that the title of the work should not mention the tides, but only refer to the mathematical representation of the motion of the earth. Galileo's old friend Maffeo Barberini, now Pope Urban VIII, insisted on the nominalist thesis of the omnipotence of God. Human beings shall never be able to explain how and why God created what he did. That is to say also that science would never be able to state the laws of nature. Supposed laws of nature on this view are only human conjectures, which might have to be withdrawn at any moment. Miracles are always to be expected. Science can offer no cognitive security. The very attempt to gain such security is vain.

With such insistence, Galileo thought, the church was abusing its authority. In his *Letter to the Grandduchess Christina* (1615) he had clearly stated his position that there could be no real incompatibility between Scripture and science:

> Let us grant that theology is conversant with the loftiest divine contemplation, and occupies the regal throne among sciences by dignity. But acquiring the highest authority in this way, if she does not descend to the lower and humbler speculations of the subordinate sciences and has no regard for them because they are not concerned with blessedness, then her professors should not arrogate to themselves the authority to decide on controversies in professions which they have neither studied nor practiced. Why, this would be as if an absolute despot, being neither a physician nor an architect, but knowing himself free to command, should undertake to administer medicines and erect buildings according to his whim, at grave peril of his poor patients' lives, and the speedy collapse of his edifices.[310]

Galileo was of course aware of the apparent incompatibilities, but by now his way of resolving these is expected. This passage from the Letter to the Grand Duchess is thus very close to one I quoted before:

> From this it follows that, if in interpreting it someone were to limit himself always to the pure literal meaning, and if the latter were wrong, then he could make Scripture appear to be full not only of contradictions and false propositions but also of serious heresies and blasphemies; for one would have to attribute to God feet, hands, eyes, and bodily sensations, as well as human feelings like anger, contrition, and hatred, and such conditions as forgetfulness of things past and the ignorance of future ones. Since these propositions dictated by the Holy Spirit were expressed by the sacred writers in such a way as to accommodate the capacities of the very unrefined and undisciplined masses, for those who deserve to rise above the common people it is therefore necessary that wise interpreters formulate the true meaning and indicate the specific reasons why it is expressed in such words.[311]

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[310] *Discoveries and Opinions of Galileo*, p. 193.
[311] *Galileo Affair*, p. 92.

Human beings should use their God-given senses and intellect.[312] Galileo wants to establish as much distance as possible between the work of philosophy and Scripture. And in support he cites both a cardinal and Scripture. First the appeal to the cardinal's words:

> Here I would say what I heard from an ecclesiastical person in a very eminent position (Cardinal Baronio), namely that the intention of the Holy Spirit is to teach us how one goes to heaven and not how heaven goes.[313]

And now the words of Scripture:

> Indeed, we also have it from the mouth of the Holy Spirit that "God hath delivered the world to their consideration, so that man cannot find out the world which God hath made from the beginning to the end" (Ecclesiastes, chapter 3); so one must not, in my opinion, contradict this statement and block the way of freedom of philosophizing about things of the world and of nature, as if they had all already been discovered and disclosed with certainty.[314]

Galileo grants that theology is queen among the sciences, but not in the sense that it knows geometry better than the geometer, or astronomy better than the astronomer:

> I do not believe that theologians who are acquainted with the other sciences can assert that theology deserves the royal title in the first sense; I think no one will say that geometry, astronomy, music, and medicine are treated more excellently and exactly in the sacred books than in Archimedes, Ptolemy, Boethius, and Galen.[315]]

Theology deserves to be called the queen of the sciences because she addresses matters relevant to our salvation.

> Thus theology does deal with the loftiest divine contemplations and for this it does occupy the royal throne and command the highest authority; and it does not come down to the lower and humbler speculations of the

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[312] Ibid., p. 94.
[313] Ibid,. p. 96.
[314] Ibid., p. 97.
[315] Ibid., p. 100.

> inferior sciences, but rather (as stated above) it does not bother with them, inasmuch as they are not relevant to salvation.[316]

Heliocentrism apparently is such a matter not relevant to salvation.

Galileo's comparison of the Church to an ignorant absolute despot is telling. The letter amounts to a declaration of independence for the new science. That letter was written in 1615, 15 years after the death of Bruno, one year before the condemnation of Copernicus, and of course long before the trial of 1633, which forced Galileo to renounce his views and led to his imprisonment and house arrest. In the *Dialogue*, published one year before the condemnation, he appears much more careful.

The new Preface Galileo was forced to write, however, almost seems to mock the Church:

> To the Discerning Reader:
>
> Some years ago there was published in Rome a salutary edict which, to prevent the dangerous scandals of the present age, imposed opportune silence upon the Pythagorean opinion of the earth's motion. There were some who rashly asserted that that decree was the offspring of extremely ill-informed passion, and not of judicious examination; one also heard complaints that consultants who are totally ignorant of astronomical observations should not cut the wings of speculative intellects by means of an immediate prohibition. Upon noticing the audacity of such complaints, my zeal could not remain silent.[317] (GA 214)

The same goes for the conclusion. Here it is the simpleton Simplicio who is speaking:

> As for the discussion we have had, and especially the last one about the explanation of the tides, I really do not understand them completely. However, from the superficial conception I have been able to grasp, I confess that your idea seems to me much more ingenious than any others I have heard, but I do not thereby regard it as true and conclusive. Indeed I always keep before my mind's eye a very firm doctrine, which I once learned from a man of great knowledge and eminence, and before which

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316 Ibid.
317 Ibid., p,.214.

> one must give pause. From it I know what you would answer if both of you were asked whether God with his infinite power and wisdom could give to the element water the back and forth motion we see in it by some means other than by moving the containing basin.[318]

Salviati, speaking for Galileo, replies by calling it

> An admirable and truly angelic doctrine, to which there corresponds very harmoniously another one that is also divine. This is the doctrine which, while it allows us to argue about the constitution of the world, tells us that we are not about to discover how his hands built it (perhaps in order that the exercise of the human mind would not be stopped or destroyed).[319]

What is at issue here is once again not so much the problem of a geocentric versus a heliocentric cosmology as the autonomy of scientific reason, a reason that has to acknowledge only the authority of what Galileo calls physical truth.

2

Galileo was an extraordinary observer. Eventually, however, he would lose his eyesight. And long before that he had begun to consider more critically the authority of the eye. Recall that passage in *The Assayer* in which Galileo claims that God wrote the book of nature in the language of mathematics. But Galileo also was aware of the need to bind mathematical speculation to observation and experiment. He was thus suspicious of the mathematical speculations of a Kepler, who relied on a fundamentally Platonic understanding of mathematics and dreamed of the harmony of the world. The relationship between the two deserves a closer look.

Far more fervently than Galileo Kepler believed that God had written the Book of Nature in the language of mathematics. Astronomers were understood by him to be God's priests:

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[318] Ibid., p. 217,
[319] Ibid., pp 217-218.

> Indeed I am of the opinion that since astronomers are priests of Almighty God with respect to the Book of Nature, we should concern ourselves not with the praise of our cleverness but with the glory of God.[320]

Kepler had indeed at first wanted to become a Lutheran minister. He never lost this sense that astronomy was his way of serving God. God, he was convinced, created the world in accord with the laws of geometry. But more than that: God created the universe as a whole ruled by harmony. He agreed with Copernicus when the former thought that his model of the cosmos exhibited such harmony that it had to be true:

> We find underlying this ordination (arrangement) an admirable symmetry in the universe and a clear bond of harmony in the motion and magnitude of the spheres such as can be discovered in no other wise.[321]

This raises the question of the place of teleological principles in science, an issue that was to occupy Kant in the second part of the *Critique of Judgment*.

Galileo had no use for such teleological reasoning. He would, however, have agreed with Kepler's insistence that astronomy had to do more than save the phenomena or engage in idle metaphysical speculations, that it needed to provide explanations that were in accord with what was known about the workings of nature, i.e. in accord with physics. As Kepler put it,

> I teach a new mathematics of computing not from circles but from natural faculties and from the magnetic properties.[322]

Galileo could not have agreed. First of all he remained as committed to "computing from circles" as any astronomer before him. The authority of the circle remained unchallenged, which makes Kepler's turn to the ellipse all the more remarkable. But he would also have wondered about what Kepler might have meant by invoking "magnetic properties." "Magnetic properties" here refers to William Gilbert's understanding of magnetic forces. Gilbert in *De Magnete* (1600) had argued that the world was a giant magnet. Kepler called the planets and the sun quasi magnetic.[323] There were some

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[320] Job Kozhamthadam, S. J., *The Discovery of Kepler's Laws* (Notre Dame: Notre Dame Press, 1994), p. 41, quoting letter to Herwart of March 25, 1598.
[321] Ibid., pp. 35 – 36, quoting De Revolutionibus I, 10.
[322] Ibid., p. 84. letter to Brengger of October 4, 1607.
[323] Ibid., p. 239.

strange forces that allowed the sun to rule the planets, the earth to rule the moon, and phenomena such as the tides. Such intuitions or suspicions prepared the way for gravity. But Galileo was committed to mechanical explanations that did not invoke some mysterious power acting at a distance.

And Galileo also must have been suspicious of Kepler's claim that his planetary hypothesis came to him as a divine gift, despite the fact that he himself attributed his reinvention of the telescope to divine grace:

> I thought it was by divine intervention that I gained fortuitously what I was never able to obtain by any amount of toil; and I believed that all the more because I had always prayed to God that if Copernicus had told the truth, things should proceed in this way.[324]

Scientific discovery, according to Kepler, depends on something like inspiration or genius. The scientist experiences it as a gift. Descartes will later describe the discovery of his method in similar words and even vow a pilgrimage to the Virgin of Loreto in thanksgiving, a vow he apparently kept.

Galileo was certainly right to be suspicious of speculations that, like Kepler's, lacked an adequate basis in physics. Kepler was too ready to trust his often rather wild mathematical imagination, to give numbers and geometric figures an almost magical power. This is the use of mathematics of which Francis Bacon was so critical.
But as we have seen, Galileo was himself not quite as free from preconceptions as his own conception of science and truth demand. He, too, found it difficult to free himself from inherited preconceptions and from his often naive trust in the eye and what he took to be common sense.

3

Kepler was much more ready to recognize the significance of Galileo's discoveries than the reverse. Already in 1597, long before the public knew Galileo to be a Copernican, Galileo had written Kepler that he, Galileo, had long been a follower of Copernicus; that he had found new arguments in support of the Copernican position, but

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[324] Ibid., p. 107, citing Kepler, *Mysterium Cosmographicum*, p. 65.

that he had not dared their publication. In that letter he does not refer to Bruno, who was then in prison in Rome. He speaks rather of his fear that such a publication would meet with little positive response, would lead instead only to the derision of its author. Kepler replies with an almost evangelical fervor: "confess, Galileo, and progress." The letters resume only in 1610, after the publication of *The Starry Messenger,* when Kepler writes him a long letter, expressing his appreciation and agreement. A year earlier Kepler had published his *Astronomia Nova* in which he presented his revolutionary thesis of the elliptical orbits of the planets. The sun is not at the center, but at one focus of the ellipse. With this the need for epicycles and eccentrics disappeared. And Kepler also demonstrated that the motion of the planets was not uniform, but swept out equal areas in equal times. Galileo failed to recognize the enormous importance of that work. In this he was not alone. The work went pretty much unnoticed. The presuppositions that help to explain this failure demand our attention. One is the hold that the circle, privileged ever since the Greeks, had on the astronomical imagination. That is true also of Galileo. Another is his trust in the eye, in what could be seen. It is to this that I now want to turn.

In a letter to Kepler Galileo speaks of his colleagues at Padua, who, as he puts it, with the persistence of a snake, closed their eyes *contra veritatis lucem*, to the light of truth. I shall return to this next time. Here I want to call attention only to how easily the evidence of the eyes here becomes here the light of truth. The equation invites our consideration.

It is surprising how readily Galileo settles for that evidence. Thus he does not make an attempt to go beyond his observations of the moons of Jupiter to the formulation of the law that governed their motion. Had he done so he might have anticipated Kepler's third law of motion, which related the period of the planets to their mean distance from the sun. But at the time of *The Starry Messenger* Galileo appears to have had little interest in such theorizing. He was interested in demonstrating the truth of the Copernican system to the eye.

And he still wanted to do this when later he appealed to the evidence of the tides, where rather uncritically he draws on the analogy between a basin with sloshing water and the tides. The same uncritical use of analogy is apparent in the way in the way he, too, in his *Dialogue,* mounts a challenge to the axiom of the uniform motion of the

heavenly bodies. We should remember that Kepler had broken with this axiom already in his *Astronomia Nova*, long before Galileo's dialogue appeared in 1632. But Galileo's theory was very different. Galileo's refusal of Kepler's theory of planetary motion may in part have been due to the fact that Kepler failed to accompany it with what Galileo could consider an adequate theory of motion. To Galileo it had no basis in an adequate philosophy of nature. And indeed, Kepler could not offer such a theory. That only Newton was to supply. But without such a basis, Kepler's theory, which was forced on him simply by the data he had inherited from Tycho de Brahe, must have seemed too much like the attempts of medieval astronomers to save the appearances by a purely mathematical calculation, that is too mathematical, not philosophical enough. And the fact that he turned to the ellipse seemed to fly in the face of received wisdom. Indeed, how, given his faith in the wisdom of the divine architect, how could Kepler justify his turn away from the circle?

Galileo's own account relies once more on a familiar phenomenon, a swinging pendulum. Galileo had noted that the period of such a pendulum remains constant; and that it increases with its length. He then applied this paradigm to the motion of the earth around the sun. Does the moon's motion around the earth not mean that the distance of the earth-moon system is sometimes shorter, shorter when the moon is closer to the sun, longer when the moon is more distant? And should this not lead one to expect a change in the speed with which the whole system travels around the sun? It should be greatest at the time of the new moon, significantly less at the time of the full moon. Galileo suggests that future observations will bear this out.

Galileo is much more down to earth in his thinking than Kepler. Perhaps he was too down to earth. That was the source of his blindness.

Galileo appealed to the eye aided by an instrument. But how reliable was this instrument? When the archbishop of Cologne looked through a telescope Galileo had sent him to advance his cause, he could not see anything and passed it on to Kepler, who saw brightly colored squares.[325] And when Galileo presented his telescope on April

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[325] Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed. (Chicago: Chicago University Press, 1970), p. 399, citing P. K. Feyerabend, *Wider den Methodenzwang*, p. 167n21.

24/25 1610 at the house of the mathematician Giovanni Antonio Magini to twenty-four professors at the University of Bologna, not one, we are told by one of his students, was able to see the Jupiter satellites; dejected Galileo stole away early the next morning.[326] A year later in Rome those who used it during the day to look at terrestrial objects were enthusiastic, but those who peered through it at night could not agree on just what they were seeing.[327] In his *Dianoia astronomica* of 1611 Francesco Sizi reminds Galileo of an evening they had spent, joined by other renowned scholars, studying Jupiter through the telescope with very uncertain results.[328] Such demonstrations could hardly convince a skeptic that Galileo's tube would allow one to see the truth.

There was the more fundamental objection: does it even make sense to claim that the truth is such that it can actually be seen? The authority of the eye had been questioned ever since Plato and optical instruments had long been associated with magic. Was Galileo's telescope more than a toy? Should the questionable evidence it offered outweigh what were thought to be the time-honored results of a science supported by the authority of Aristotle?

Consider Sizi's *Dianoia astronomica*, which appeared in Venice just a year after Galileo's *Starry Messenger*. Sizi was not so much concerned to save the Aristotelian world-view. What upset him was the claim that four new planets had been discovered. He was convinced that there had to be seven. His conviction was based on analogies that link astronomy to Sacred Scripture, science to theology.[329] And Sizi's reflections were not at all an oddity. Even Kepler questioned the news of Galileo's discovery of four new planets, although he trusted the reliability of Galileo's observations. But at the time he was convinced that there could be only six planets, whose orbits were separated by the five regular Euclidean solids. The difficulty was removed when what he had already

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[326] As reported by the Magini student Martin Horky in a letter to Kepler (April 27, 1610). Magini himself writes to Kepler a letter of May 26 of the need to get rid of these new servants of Jupiter. See Hans Blumenberg, *Die Genesis der kopernikanischen Welt* (Frankfurt am Main: Suhrkamp, 1975), p. 764.

[327] Kuhn, pp. 399-400. Relying on Feyerabend, pp. 164, 155.

[328] The text cited in Kuhn pp.400-401.

[329] On Sizi see Hans Blumenberg, *Die Genesis der kopernikanischen Welt* (Frankfurt am Main: Suhrkamp, 1975), pp. 766-781.

suspected turned out to be correct: the supposed new planets were not really planets at all, they were moons.

Unlike Cremonini or Sizi, Kepler did not doubt the reliability of Galileo's observations. But were they so wrong to question the authority of the eye aided by an unfamiliar optical instrument. Galileo's confidence in the eye must have seemed just a bit naive to anyone who took Plato seriously. Conversely, such confidence in the eye had to call into question the use of mathematics, not just by a Sizi, but also by a Platonist such as Kepler. Too much here would have reminded him of the reasoning relied on by Renaissance magic and its science of nature. He would have listened more sympathetically to Francis Bacon's condemnation of the natural philosophy of his time as

> tainted and corrupted: in Aristotle's school by logic; in Plato's school by natural theology; in the second school of the Platonists, such as Proclus and others, by mathematics, which ought to give definiteness to natural philosophy, not to generate or give it birth.[330]

In each case experience is not taken seriously enough. Think of the reasoning of Sizi. But is not even Kepler a good example of someone led astray by mathematics? And would we not have to include Copernicus and even Galileo himself in the list of those condemned by Bacon: what justified their insistence that the heavenly bodies move in perfect circles?

Bacon's attempt to recall science to experience makes an important point. And yet, had his appeal been taken as seriously as Bacon had hoped, it would have forestalled the development of modern science. What got modern science going was not just its greater empiricism. For that development to take place mathematics had to be given a more important role than Bacon was willing to grant it. The new science had to steer a course between Bacon's empiricism and Kepler's Platonism. Galileo and, following him, Descartes here showed the way.[331]

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[330] Francis Bacon, *Novum organum*, XCVI, trans. J. Spedding in Francis Bacon of Verulam, *The Works of Francis Bacon*, eds. J. Spedding, R. Ellis, D. Heath (Boston: Brown and Taggard, 1860-1864), vol. I.

[331] For this understanding of the significance of Descartes, I am indebted to Lüder Gäbe, *Descartes Selbstkritik: Untersuchungen zur Philosophie des jungen Descartes* (Hamburg: Meiner, 1972).

24. Bellarmine Contra Galileo

1

In an earlier session we looked both at the preface and the ending of the Dialogue that Galileo had written to satisfy the Inquisition. Galileo here pays lip service to the position that the Church had used already in 1277, then to put Aristotelian science in its place. But, as we have seen, Galileo puts his seeming agreement with the Church in the mouth of the simpleton Simplicio. Let me read once more the relevant passage:

> Indeed I always keep before my mind's eye a very firm doctrine, which I once learned from a man of great knowledge and eminence, and before which one must give pause. From it I know what you would answer if both of you were asked whether God with his infinite power and wisdom could give to the element water the back and forth motion we see in it by some means other than by moving the containing basin.[332]

Not surprisingly the inquisition was not convinced. Nor where they taken in by Salviati's almost mocking agreement and response:

> An admirable and truly angelic doctrine, to which there corresponds very harmoniously another one that is also divine. This is the doctrine which, while it allows us to argue about the constitution of the world, tells us that we are not about to discover how his hands built it (perhaps in order that the exercise of the human mind would not be stopped or destroyed).[333]

The special commission's report of September 1632 charging Galileo with heresy is difficult to disagree with:

> Moreover there are in the book the following things to consider, as specific items of indictment:
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> i. That he used the imprimatur for Rome without permission and without sharing the fact of the book's being published with those who are said to have granted it.

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[332] *Galileo Affair*, p. 218.
[333] *Ibid*.

> ii. That he had the preface printed with a different type and rendered it useless by its separation from the body of the work; and that he put the "medicine of the end" in the mouth of a fool and in a place where it can only be found with difficulty, and then he had it proved coldly by the other speaker by merely mentioning but not elaborating the positive things he seems to utter against his will.[334]

Let me cite two more items from the special commission report.

> vi That he wrongly asserts and declares a certain equality between the human and he divine intellect in the understanding of geometrical matters.[335]

This point is crucial, touching on a central presupposition of the Galilean understanding of nature, a presupposition Descartes attempted to secure with his determination of the being of nature as *res extensa* and a God who would not deceive us when we think something clearly and distinctly. What is at issue retains its significance today. When the scientist is describing nature, is he offering more than a hypothesis, as Osiander would have insisted, or is he claiming to describe things a they really are, as Galileo appears to claim, or is he doing something in between, as Kant would claim, who insists that a knowledge of things in themselves is denied to us, that science tracks the truth of phenomena, where these phenomena are thought relative to the nature of the human understanding.

Interesting is the point that follows:

> vii. That he gives as an argument for the truth the fact that Ptolemaics occasionally become Copernicans, but the reverse never happens.

This suggests that the progress of thought is the progress of truth. Truth will win in the end. I find it impossible to disagree with Galileo on this point. The question is, however, how are we to understand truth here? As correspondence to things in themselves or as correspondence to the objects, thought relative to an ideal observer or a community of inquirers committed to objectivity.

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[334] Ibid., p. 221.
[335] Ibid., p. 222.

In his first deposition Galileo attempts to present himself as someone who always sought to subordinate himself to the Church:

> I was in Rome in the year 1616; then I was there in the second year of his Holiness Urban VIII's pontificate; and lastly I was here three years ago, the occasion being that I wanted to have my book printed. The occasion for my being in Rome in 1616 was that, having heard objections to Nicolaus Copernicus's opinion on the earth's movement, the sun's stability, and the arrangement of the heavenly sphere, in order to be sure of holding only holy and Catholic opinions, I came to hear what was proper to hold in regard to this topic.[336]

Galileo admits that on that occasion he was officially informed that the Copernican position was unacceptable to the Church:

> Regarding the controversy which centered on the above mentioned opinion of the sun's stability and earth's motion, it was decided by the Holy Congregation of the Index that this opinion, taken absolutely, is repugnant to Holy Scripture and is to be admitted only suppositionally, in the way that Copernicus takes it.[337]

But it was impossible for Galileo to argue that his *Dialogue* was compatible with that position. The Sentence of June 22 is thus not unexpected:

> We say, pronounce, and declare that you, the above-mentioned Galileo, because of the things deduced in the trial and confessed by you as above, have rendered yourself according to the Holy Office vehemently suspected of heresy, namely of having held and believed doctrine which is false and contrary to the divine and Holy Scripture: that the sun is at the center of the world and does not move from east to west, and that the earth moves and is not the center of the world, and that one may hold and defend as probable an opinion after it has been declared and defined contrary to Holy Scripture. Consequently you have incurred all the censures and penalties imposed and promulgated by the sacred canons and all particular

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[336] Ibid., p. 257.
[337] Ibid., p. 258.

> and general laws against such delinquents. We are willing to absolve you from them provided that first, with a sincere heart and unfeigned faith, in front of us you abjure, curse, and detest the above mentioned errors and heresies, and every other error and heresy contrary to the Catholic and Apostolic Church, in the manner and form we will prescribe to you.[338]

We should note the two charges: 1) that Galileo holds the sun to be the center of the world and 2) that he thinks it possible to hold and defend an opinion after it has been declared contrary to Scripture. Once more the Church asserts itself as the highest arbiter of claims to truth.

The commission was of course right: Galileo was guilty as charged. Whether the charges could be defended is quite a different matter. The final verdict that concludes the inquisition proceedings is thus anything but surprising. And Galileo is no hero. Unlike Bruno, he did not want to die a martyr for what he took to be the truth. So he recanted:

> Therefore, desiring to remove from the minds of your Eminences and every faithful Christian this vehement suspicion, rightly conceived against me, with a sincere heart and unfeigned heart I abjure, curse, and detest the above-mentioned errors and heresies, and in general every other error and heresy and sect contrary to the Holy Church; and I swear that in the future I will never again say or assert, orally or in writing, anything which might cause a similar suspicion about me."[339]

After six months Galileo was allowed to return to Florence, where he was placed under house arrest. As pointed out, today the Church has admitted the error of its ways.

2

As I suggested before, many have gotten their picture of the Galileo affair trough Bertolt Brecht's play, *The Life of Galileo*, written after the Nazi dictatorship had forced him to emigrate. Brecht's Galileo is selfish, not especially nice to friends and daughter, eager to claim credit where it is not really his due, as in the matter of the telescope, unwilling to die for the truth, but also committed to the continuing pursuit of the truth.

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[338] Ibid., p. 292.
[339] Ibid.

One way to read the lesson of the play is that while authority may silence those who speak for the truth in the short run, in the long run the truth will win out. Brecht presentation of the opposition — the Church and the scientists who refuse to abandon Aristotelian astronomy — is quite sympathetic.

But let me return to the play's underlying theme: the truth will win out. The blindness of Galileo's Aristotelian opponents, who refused to look through his telescope, is represented by the philosopher in the play. Brecht had in mind Galileo's celebrated colleague and friend at the university of Padua, Cesare Cremonini,[340] the leading Aristotelian of the day, who, as I mentioned before, thought that whatever he might see with help of the telescope would only confuse him.

History has not been kind to Cremonini: once extravagantly praised as the first philosopher of the age, as *Genius philosophiae*, as "*genio d'Aristotele, e la Lucerna de' Greci Interpreti,*" he was to become the paradigm of a backward-looking obstinacy that refused to acknowledge what should be evident to all but willing to open their eyes. In his study of Cremonini Heinrich C. Kuhn goes so far as to claim that "if one were to look for the worst and least interesting philosopher" of all times and were to base one's judgment on the secondary literature, "hardly a doubt seems possible that the choice would fall on Cesare Cremonini."[341] As if to support such an assessment, on the internet Joseph W. Newman today offers us Cremonini's refusal to look through Galileo's tube as "a sterling example of 'intellectual dishonesty.'"[342]

Cremonini hardly deserves such censure. With justified pride he could write in his will: *Ad philosophiam sum vocatus, in ea totius fui*.[343] And such love and service of the truth, as he understood it, had to bring this Aristotelian, too, into conflict with the Inquisition (more especially with Cardinal Bellarmine),[344] which was troubled by the evident incompatibility between Aristotle's teaching concerning the eternity of the world,

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340 On Cremonini see Heinrich C. Kuhn, *Venetischer Aristotelismus im Ende der aristotelischen Welt. Aspekte der Welt und des Denkens des Cesare Cremonini (1550-1631)* (Frankfurt am Main: Peter Lang, 1996).

341 Kuhn, p. 17.

342 From josephnewman@earthlink.net Sun Feb 18 17:02:00 1996. Cf. Arthur Koestler, "The Greatest Scandal in Christendom", an essay on Galileo, 1964

343 Kuhn, p. 51.

344 Kuhn, pp. 126 – 131.

the inseparability of intellect and body, God's self-contemplation, troubled also by Cremonini's willingness to criticize Thomas Aquinas in the name of Aristotle. Admonished to resist the temptation to appear as a great philosopher rather than as a good Catholic, Cremonini pretty much holds his ground. In this respect he comes off better than Galileo. He grants that Aristotle, forced to think without the help of divine revelation, relying only on experience and reason, cannot be said to have been in possession of the absolute truth, but only of truth in a *modus diminutus & falax*, in a diminished and fallible mode. But was it not the task of philosophy to limit its claims to what could be supported by human reason, without the help of revelation? And can philosophy claim more than to possess truth in a *modus diminutus & falax*?

Cremonini insisted that philosophy has to limit its claims to what could be supported by human reason, without the help of revelation. In this sense Cremonini could perhaps have agreed with Kant when in a famous passage in *The Critique of Pure Reason* he admonishes us to settle for the truth that is available to us. Galileo after all was, as we know, not in possession of the truth: we know today that the sun is not the center of the cosmos.

And did Cremonini betray his own understanding of the philosopher's vocation when he refused to look through Galileo's telescope? In fact, as Umberto Eco points out, "when you read a serious book on Cremonini, first you discover that Cremonini was a great mind of this time, even though he was not an innovator like Galileo, and that it isn't true that he refused to look into the binocular. He just said: 'At the present state of technology, those lenses are very rudimentary, so I don't think that they can really help me to see something more'"?[345] Was Cremonini really so unreasonable? We still say of someone, who claims to see what we think cannot be, "he is seeing things."

Many years ago someone offered me mescaline with the promise that it would open the gates of perception: was my refusal a mark of intellectual dishonesty? My understanding of reality has no room for the wondrous things the drug promised me. When Galileo claimed to see mountains on the moon, was he not just seeing things? Rather like Copernicus, who demanded more of the astronomer than ad hoc hypotheses to

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[345] A Conversation on Information. An interview with Umberto Eco, by Patrick Coppock, February, 1995.

save the phenomena, demanded instead that the explanations he offered be in accord with the axioms of nature, like Galileo himself, who also claimed the mantle of the philosopher, Cremonini insisted that the theses advanced by science deserved to be taken seriously only when in accord with the essence of nature. And his understanding of that essence included Aristotle's understanding of the elements. Through his tube, Galileo claimed that he could see that the moon was another earth, not at all a novel view, since Plutarch already had entertained something of the sort. But if the moon were indeed another earth, would it not have crashed down into this earth long ago? The incompatibility of what Galileo claimed to see with his tube and Cremonini's, as he himself admitted, *diminutus & falax* understanding of the essence of nature, makes his refusal to look through Galileo's telescope much more than just an irrational act and certainly does not merit the charge of intellectual dishonesty.

4

Postmodern speculations have raised questions about the claim to truth made by the founders of the new science, such as Galileo and Descartes. It has become fashionable to consider human beings incapable of the truth. One could point to developments in the philosophy of science, to what was called the New Philosophy of Science, represented by Thomas Kuhn and Paul Feyerabend. Richard Rorty's *Mirror of Nature*[346] gave symptomatic expression to such doubts: in that book he has this to say about the Galileo affair:

> ,,, can we then find a way of saying that the considerations advanced against the Copernican theory by Cardinal Bellarmine — the scriptural descriptions of the fabric of the heavens — were "illogical or "unscientific?[347]

Rorty argues that today we have to answer this question with a "no."

> The argument … centers around the claim that the lines between disciplines, subject matters, parts of culture, are themselves endangered by

[346] Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979), pp. 328-333.
[347] Ibid., p. 328.

> novel substantive suggestions… Bellarmine thought that the scope of Copernicus's theory was smaller than might be thought. When he suggested that perhaps Copernican theory was just an ingenious heuristic device for, say, navigational purposes and other sorts of practically oriented celestial reckoning, he was admitting that the theory was, within its proper limits, accurate, consistent, simple, and perhaps fruitful. When he said that it should not be thought of as having wider scope than this, he defended his view by saying that we have excellent independent (scriptural) evidence for believing that the heavens were roughly Ptolemaic.[348]

And Rorty then asks:

> What determines that Scripture is not an excellent source of evidence for the way the heavens are set up?[349]

Rorty invites us to think Bellarmine's attempt to limit the scope of Copernicus as fundamentally no different from Galileo's attempt to limit the scope of Scripture. As it turned out, the future made Galileo the victor.

The notion of what it was to be "scientific" was then in the process of being formed.

> If one endorses the value — or, perhaps, the ranking of competing values — common to Galileo and Kant, then indeed Bellarmine was being "unscientific." But, of course, almost all of us (including Kuhn, though perhaps not including Feyerabend) are happy to endorse them. We are the heirs of three hundred years of rhetoric about the importance of distinguishing sharply between science and religion, science and politics, science and art, science and philosophy, and so on. This rhetoric has formed the culture of Europe…., But to proclaim our loyalty to these distinctions is not to say that there are "objective" or "rational" standards for adopting them.[350]

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348 Ibid., p. 329
349 Ibid.
350 Ibid., pp. 330-331.

Galileo, according to Rorty, happened to win then argument. According to this post-Copernican, post-modern philosopher, we simply do not know how to draw a clear line between theological and scientific discourse.

I want to make the opposite claim: Bellarmine's reflections were not at all illogical, but they were unscientific. As I pointed out already, science presupposes a commitment to objectivity. Crucial is reflection on the way our access to things is first of all governed by a point of view that is inseparable from our location in time and space and the make-up of our sense organs: that is to say, first of all we know only appearances. But such reflection inevitably suggests the possibility of going beyond such appearances and of gaining a better access to reality. This distinction between appearance and invisible reality was drawn expressly by Copernicus himself. But Copernicus aside, reflection on the phenomenon of perspective will generate again and again the distinction between appearance and reality, the former subjective and perspectival, the latter less dependent on the distortions of perspective and in this sense more objective. At the same time such reflection has to lead to a dissociation of reality and visibility. Objects as they are in themselves are essentially invisible. That is to say, reality does not present itself to us as it is. It is seized only in our reconstructions. Science provides such reconstructions.

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But if I want to insist that there are good reasons to call Galileo's defense of Copernicus scientific in a way that Bellarmine's appeal to Scripture and the authority of the Church is not, I also think there are good reasons for insisting on the limited scope of science so understood. To approach this let me turn to a passage from Husserl's *The Crisis of European Sciences:*

> For Platonism the real had a more or less perfect methexis in the ideal. This afforded ancient geometry possibilities of a primitive application to reality. [But] through Galileo's mathematization of nature, nature is idealized under the guidance of the new mathematics; nature itself becomes — to express it in a modern way — a mathematical manifold.[351]

Husserl accuses Galileo of replacing the life-world, the world in which we live and perceive, with the world constructed by science. Whether this does quite do justice to Galileo who had such trust in the eye can be questioned. But this elision of the life-world is indeed characteristic of our modern understanding of reality, shaped as it is by science and technology. There is a sense in which Aristotelian medieval science remained closer to the life-world than our modern science and world-understanding. Galileo's world, as least as Husserl here understands it, was one of pure quantity. It was not the world of Aristotle; nor was it easily reconciled with the Christian world view. It was a world knowable to the mathematician but at some distance from the world revealed by ordinary sense perception. Concerning this world Galileo thus writes in the *Assayer:*

> Hence I think that tastes, odors, colors, and so on are no more than mere names as far as the object in which we place them is concerned, and that they reside only in the consciousness. Hence if the-living creature were removed, all these qualities would be wiped away and annihilated.[352] *(DOG 274)*

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To give more focus to what is at stake here let me turn in concluding this discussion of Galileo to Heidegger's lecture "The Age of the World Picture."[353] This is of course our age. Heidegger offers us a fivefold characterization of this age:

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[351] Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology. An Introduction to Phenomenological Philosophy*, trans. and intro. David Carr (Evanston: Northwestern University Press, 1970), p. 23.

[352] *Discoveries and Opinions of Galileo* ,p. 274.

[353] Martin Heidegger, "Die Zeit des Weltbildes, *Holzwege, Gesamtausgabe*, vol. 5 (Frankfurt am Main: Klostermann, 1977), pp. 75-113. Trans. William Lovitt, "The Age

1. It has its foundation in metaphysics.

2. Today metaphysics finds its most visible expression in technology. Here it can be said to have triumphed.

3. An aesthetic understanding of the work of art corresponds to this triumph.

4. Related is an understanding of culture as the preservation and cultivation of what are taken to be the highest values.

5. And finally Heidegger speaks of *Entgötterung*. That is to say, our understanding of reality no longer has a place for God, or gods, or the divine.

In everyone's experience there is much that does not fit Heidegger's characterization. What he offers us is no more than a simple model that focuses on certain key aspects of the world we live in. Or, we can say, what he offers us is a caricature. But like any good caricature it captures something essential and disturbing. Just what does Heidegger have in mind when he calls our age "The Age of the World Picture"? The word "picture" hints at a first answer. We can look at pictures, stand before them, but we cannot enter or leave them, cannot live or dwell in them. Pictures may include representations of persons. This already suggests what is at stake in the phrase: "The Age of the World Picture." To the extent that we understand the world as a picture, we stand before it, have lost our place in it. In such a world we can no longer be said to dwell. In such a world we all tend to become displaced persons. Such a displacement is presupposed by the science inaugurated by Galileo. Just this was seen by Husserl. Presupposed is a transformation of the embodied self into a disembodied thinker and observer. This transformation of the embodied self into a Cartesian *res cogitans* lies at the very origin of philosophy and that is to say also at the origin of science. The scientist wants to see, wants to understand what is as it is, bracketing for the sake of such objectivity himself and his place in the world. This desire to just see and understand caused already Thales to tumble into his well. Absent-mindedness characterizes the very origin of philosophy and science. It is but the other side of that disinterested objectivity that we demand of all who lay claim to truth. But is that demand justified? Can objective truth so understood be equated with truth?

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of the World Picture," *The Question Concerning Technology and Other Essays* (New York: Harper, 1977), pp. 115-154.

A picture assumes an eye placed before and thus outside it. The Cartesian world-picture assumes an I placed before and thus outside it. The Cartesian *res cogitans* has thus no place in the world whose essence Descartes determines as *res extensa*. The subject has fallen, had to fall out of the world so understood. Science knows nothing of such a thinking substance. All it can do is study brain processes and the like. That is to say, science as such knows nothing of persons deserving respect. So understood persons have no place in the scientific world-picture. But this suggests that the scientific world picture has to lose sight of what most profoundly matters. This invites reconsideration of the Galileo affair and of Galileo's attempt to separate the pursuit of truth as we find it in science from theology, which is concerned with salvation. It also invites reconsideration of Bellarmine's attempt to limit the scope of the claims of science. We do need to limit that scope.

25. Religion and the Freedom of Thought

1

Three issues especially were the focus of this course: freedom, truth, and religion. In the case of the Condemnation of 1277 it was the freedom to follow reason that was condemned. Such freedom the Church thought would lead the individual away from the only authority that should bind freedom: what Augustine called Christian Wisdom. To the authority of the Church philosophers like Siger opposed the autonomy of philosophy: reason alone should bind the thinker; the freedom of thought is demanded by the search for the truth. No human institution, such as the Church, should stand in the way of unprejudiced observation and thought. As it turned out, philosophers like Averroes and, following him, Siger were not quite as free in their thinking as they thought. Reason and observation to them seemed to speak with the voice of Aristotle, so that in fact it was the authority of a particular thinker that bound freedom without the philosophers following him being aware of this, just as they were not aware that it was what they experienced as the oppressive authority of the Church with its insistence on the freedom of an omnipotent God who could not be imprisoned in Aristotle's philosophy that in fact liberated thought from the fetters of Aristotelian thought, made thought more free.

But what the Church was interested in was not such freedom. It felt it had to defend the Christian world-view against an understanding of nature impossible to reconcile with the Christian world-view, where the chief targets were Aristotle and his Arab interpreters, especially Averroes. We should note that many of the charges then brought against philosophers such as Siger were still raised in the 17th century against an Aristotelian such as Cremonini. What concerned the Church was philosophy's or more generally human reason's claim to autonomy. To the authors of the Condemnation it was clear that what really mattered was care for our souls. They were also convinced that in their present fallen state human beings were in no position to adequately provide such care. Human reason was unable to take away the sting of death, not to mention the countless travails of this life; and human reason was unable to provide human beings with the measure that would bind freedom and allow the individual to live as they ought to; and human reason was not sufficient to save us from the terrors of hell. But faith in God,

who revealed himself both in the book of nature and in Holy Scripture, who gave us His law, and who by dying for us robbed death of its sting and hell of its terror, promised an answer to all these concerns. The authors of the Condemnation were convinced that Augustine was right when he taught that Christian Wisdom required that all profane knowledge should serve sacred science, that the supremacy of theology must go unchallenged. Philosophers like Siger insisted instead on the freedom and autonomy of human thought. Such insistence had to challenge the supremacy of theology.

There would be an easy answer to the conflict between profane knowledge and Christian Wisdom, if each could be shown to rule in its own realm and that there was no conflict between these two realms. One might then hold that there were two truths, one based on human reason, the other based on revelation, but since these were in fact distinct realms there was no conflict. Siger hints at some such a view and in their different ways both Cremonini and Galileo later were to suggest something of the sort. Cremonini thus granted that his hero Aristotle, forced to think without the help of divine revelation, relying only on experience and reason, cannot be said to have been in possession of the truth, but only of truth in a modus *diminutus & falax*, in a diminished and fallible mode. There are then two truths, one accessible to reason unaided by grace, the other truth, truth in the full sense, available to us humans only by the grace of God. Galileo in a number of places suggests a similar division of realms. Theology can be granted its claim to be the queen of the sciences, since it is concerned with issues pertaining to salvation, but when what is at issue is the workings of nature, she could claim no authority.

Unfortunately, it is impossible to maintain such a neat division of realms. These two realms overlap. To the authors of the Condemnation of 1277 it was thus obvious that Aristotelian science and Christian doctrine were incompatible. Thus they felt they had to speak up both for the freedom of God and for human freedom in the face of an understanding of nature that would deny both. They had to defend the Christian creation account and the story of the fall against a philosophy that would deny both. And they had to speak up for the existence of individual souls that would be rewarded or punished after death. Christian Wisdom demanded the rejection of the claim that science is able to lay hold of the truth. And we should ask ourselves whether, in a different key, the problem raised then must not be re-raised today. Does our science leave room for a robust sense

of what it means to be a person, not to mention a robust sense of God? Does our reason hold the key to what it is to live as we ought to live? Many of the issues that occupied the authors of the Condemnation have returned today if in a new key. This gives the Condemnation a renewed relevance.

2

I suggested that the Condemnation of 1277, by liberating thought from the fetters of Aristotelian thought, made thought more free. It is that heightened sense of freedom that speaks to us in the sermons of Meister Eckhart and that provoked his condemnation in 1327. Eckhart, encouraged by meditation on the infinity of God, encouraged also by thinkers such as Averroes and Siger, recognized the power of the mind to raise itself above its bodily placement here and now, to discover within itself an infinite freedom. The human power of self-transcendence opens up within the self an infinite abyss. That abyss threatened to swallow everything that would bind freedom, the authority of tradition and the authority of all human institutions. This threatens what, following Kierkegaard, I called a teleological suspension of the ethical and with it anarchy. Eckhart recognized this threat. He thought that the individual who truly lived in God would spontaneously do the right thing, could not help doing it. He would, to use his simile, be like a person whose feet were bound. Here, too, it is religion that is to bind freedom. This, however, is a religion mediated neither by the Church nor by some moral law available to reason. But without such external measures, how would it be possible to distinguish good from evil. The Church thought Eckhart deceived by the devil whose name is Lucifer, the bringer of light.

A key text here is Isaiah 14: 12-15.

> How you are fallen from heaven,
> O Day Star, son of Dawn!
> How you are cut down to the ground,
> You who laid the nations low!
> You said in your heart,
> “I will ascend to heaven;
> above the stars of god

> I will set my throne on high:
> I will sit on the mount of assembly in the far north;
> I will ascend above the heights of the clouds,
> I will make myself like the Most High."
> But you are brought down to Sheol,
> To the depths of the Pit.

Lucifer here stands for a pride that would dispense with divine grace, that would rely only on the power of human reason. The question is whether such power is able to lead us to the good life.

Let me add to this passage St. Augustine, *The City of God*, Book XI, 11:

> Those spirits whom we call angels were never at any time or in any way darkness, but, as soon as they were made, were made light; yet they were not so created in order that they might exist and live in any way whatever, but were enlightened that they might live wisely and blessedly. Some of them, having turned away from this light, have not won this wise and blessed life, which is certainly eternal, and accompanied with the sure confidence of its eternity; but they still have the life of reason, though darkened with folly, and this they cannot lose, even if they would.

The conjunction of light and pride leads to a perversion of light. And is light not thus perverted whenever reason turns away from God's light, as present to us in Scripture and mediated by the Church? To the philosopher this poses the question: is reason able to bind freedom in such a way that it will allow us to live a meaningful life, or does that require some other sort of binding?

3

If in the condemnation of Meister Eckhart the concerns of the Church were primarily moral and political, this is also true of the condemnation of Bruno. Once again the key to Bruno's thought is his commitment to a freedom that knows no limits and refuses to be bound by either the Church with its dogmas or by Aristotelian science. Bruno's pantheism left no room for the Biblical God who is supposed to have created this world, to have given us his law, and to have given us his son, who died on the cross so

that we might be saved. Bruno's cosmology implies the death of the Biblical God, who according to the Church, revealed himself in nature, made through the Word, in Scripture, the Divine Word, and in Jesus Christ, the Word become flesh. Thus he places us on the threshold of nihilism. His espousal of the Copernican cause brings to mind Nietzsche's lament:

> Since Copernicus, man seems to have got himself on an inclined plane — now he is slipping faster and faster away from the center into — what? into nothingness? into a *penetrating* sense of his own nothingness?[354]

Bruno, to be sure, found in the Copernican revolution a figure of a revolution that would bring with it a liberation of human beings from all sorts of despotic regimes. But freedom unbound does not allow for a coherent ethics or politics. What is to bind human freedom? That was the question with which Bruno already, and then Nietzsche, had to struggle.

4

The condemnation of Galileo, finally, places us on the threshold of our modern world. At issue is once again the role of the Church as the supreme custodian of the truth, challengijng the claim of science. As we have seen, Galileo refuses to accept anything resembling a theory of double truth. But he does not claim that his philosophy of nature has an answer to the question: how ought I to live? What he does claim is that when scientific truth and what religion teaches appear to be in conflict it is the latter that will have to give way. What he does not claim is that the reality known to science, that is nature as known to objectifying reason, can be equated with reality. Galileo grants the Church that whatever science can teach us are not truths that can save us or provide moral guidance. But can science claim to lay hold of the truth? Was Cardinal Bellarmine not right to insist that Galileo had no right to claim quite this much?

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[354] Friedrich Nietzsche, *On the Genealogy of Morals*, III, 25, trans. Walter Kaufmann.and R. J. Hollingdale, *On the Genealogy of Morals and Ecce Homo* (New York: Vintage, 1989), p. 155.

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In conclusion, therefore, let me return to the question of truth. Traditionally truth is located in our judgments or assertions. To return to Thomas Aquinas' much cited definition: "Truth is the adequation of the thing and the understanding."[355] How do we decide whether our understanding is indeed adequate to the thing? As I pointed out, the things are given to us only in inescapably subjective appearances. I also suggested that science allows us to move beyond such appearances towards descriptions of objective reality. But objective reality here remains a regulative ideal. To that regulative ideal corresponds the idea of an ideal subject that would understand the objects as they are.

But do we have any right to this idea of an ideal subject and the corresponding idea of objective reality? Heidegger claimed that absolute truth and the absolute subject are residues of Christian theology philosophy ought to leave behind.[356] He suggests that any appeal to an idealized subject in an attempt to ground truth borrows illegitimately from the Christian understanding of God. Kant's transcendental subject invites such a charge.

Heidegger would thus have us ask: Are we really able to transcend our space- and time-bound situatedness? This suggests that if we are more radically critical than Kant and free his crucial insight from remnants of the Christian understanding of truth, which would ground truth in the creative and a-perspectival vision of God, we will be forced to submerge both subject and understanding in the world and subject both to time. In different ways both Heidegger's *Being and Time* and Wittgenstein's *Philosophical Investigations* bear witness to such a submersion. But let me turn here return to Nietzsche's *On Truth and Lie*, which has become a favorite text with postmodernists:

> What then is truth? A movable host of metaphors, metonymies, and anthropomorphisms, a sum of human relations which have been poetically and rhetorically intensified, transferred and embellished, and which, after long usage, seem to a people to be fixed, canonical, and binding. Truths are illusions which we have forgotten are illusions; they are metaphors that have become worn out and have been drained of sensuous force, coins

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[355] Thomas Aquinas, *Questiones disputatae de veritate*, qu. 1, art. 1.
[356] *Being and Time*, p. 272.

> which have lost their embossing and are now considered as metal and no longer as coins.[357]

This challenges Kant's attempt to justify our claim to knowledge by appealing to the human power of self-transcendence, by pointing out how inextricably we remain mired in our natural and cultural situation.

Kant. too, recognizes that our understanding has limits and admonishes us not to step beyond the limits:

> We have now not merely explored the territory of pure understanding, and carefully surveyed every part of it, but have also measured its extent and assigned to everything in it its rightful place. This domain is an island, enclosed by nature itself with unalterable limits. It is the land of truth — enchanting name! — surrounded by a wide and stormy ocean, the native home of illusion, where many a fog bank and many a swiftly melting iceberg give the deceptive appearance of farther shores, deluding the adventurous seafarer ever anew with empty hopes, and engaging him in enterprises which he can never abandon and yet is unable to carry to completion.[358]

But does Nietzsche really disagree with Kant? If so, just what is the nature of Nietzsche's disagreement? What does Nietzsche mean by truth? Accepting the traditional understanding of truth as *adaequatio intellectus et rei*, he, too, points out that full adequacy would mean the disappearance of what distinguishes the two. As we saw, in God's creative understanding intellect and thing were thus thought to coincide. Following Kant and Schopenhauer rather than Thomas Aquinas, Nietzsche understands "truth" in the fullest sense as the correspondence of our thoughts to the things themselves. But "'The thing in itself' (which is precisely what the pure truth apart from any of its consequences would be) is likewise something quite incomprehensible to the creator of language and not in the least worth striving for."[359] Kant, no more than

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[357] "On Truth and Lies," p. 84.
[358] Kant, *The Critique of Pure Reason*, A 235-236/B 294-295. Trans. Norman Kemp Smith.
[359] "On Truth and Lie," p. 82.

Nietzsche, would claim that we can possess the truth in that sense. His understanding of truth is quite different. Truth, a we saw, is understood by him in terms of the adequacy of the intellect, not to the things in themselves, but to the objects, where the thought of the object is the thought of the thing as it would present itself to a subject free of all perspectival distortion.

Would Nietzsche have disagreed with any of this? He himself points out how difficult it is to take issue with Kant:

> Every person who is familiar with such considerations has no doubt felt a deep mistrust of all idealism of this sort: just as often as he has quite clearly convinced himself of the eternal consistency, omnipresence, and infallibility of the laws of nature. He concludes that so far as we can penetrate here — from the telescopic heights to the microscopic depths — everything is secure, complete, infinite, regular, and without any gaps. Science will be able to dig successfully in this shaft forever, and all the things that are discovered will harmonize and not contradict each other.[360]

To be sure, Nietzsche does go on to remind us of the many ways in which the manifest image of the world is limited by all sorts of perspectives, shaped by all sorts of metaphors. But he concludes the first part of the essay by pointing out

> that the artistic process of metaphor formation with which every sensation begins in us already presupposes these form [the Kantian forms of pure intuition] and thus occurs within them. The only way in which the possibility of subsequently constructing a new conceptual edifice from metaphors can be explained is by the firm persistence of these original forms. That is to say, this conceptual edifice is an imitation of temporal, spatial, and numerical relationships in the domain of metaphors.[361]

This explains why the extent to which science trades metaphorical for mathematical forms of description is a measure of its progress.

Borrowing from Schopenhauer, who in turn relies on Kant, Nietzsche here sketches with a few strokes his version of a transcendental justification of the scientific

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[360] "On Truth and Lie," p. 87.
[361] Ibid., p. 88.

pursuit of objective knowledge. The problem with the pursuit of truth so understood is for Nietzsche not that it rests on shaky foundations, but that it is all too successful, even as it threatens to render our life-world ever more uninhabitable. The pursuit of objective truth has to lead to nihilism. Essentially the same claim is made by Heidegger when he understands our age as the age of the world picture. And by Wittgenstein when in the *Tractatus* he lays out the conditions that make meaningful speech possible, where meaning here is understood in its relation to objective truth. Wittgenstein's logical space is essentially the same space in which we must look for Kant's island of truth. But, as Wittgenstein makes clear, logical space has no room for anything resembling values or persons. That is why human beings will refuse to dwell contentedly on Kant's enchanting island, why they will be lured ever again to explore the stormy ocean that surrounds that island. Nietzsche and Heidegger were such sailors. And must the same not finally be said of Kant himself? Did he, too, not recognize that his island knew neither persons nor values. The understanding of experience presupposed by the *First Critique* binds it to objective truth in a way that has to lose sight of moral and aesthetic experience. But, as Kant of course knew, we do experience persons and we do experience beauty. And it is to keep open life to dimensions of reality that need to bind freedom if our life is to have meaning, that we may not confuse the objects pursued by science with things in themselves, the Church might have said, may not confuse the truth open to science with the truth that saves. We have to open windows in the house objectifying reason has built, windows to a reality that transcends the reality pursued by our science. How is such transcendence experienced? One such experience is the experience of the beautiful. Another is the experience of a person. The religious person would want to add: the experience of nature as God's creation.

26. Truth and Value Today

1

What is at issue in the condemnation of Galileo is not so much the truth of the Copernican position embraced by Galileo as the meaning of truth and, bound up with this and more importantly, the problem of the value of truth, raised so insistently by Nietzsche, especially in *Beyond Good and Evil* and *On the Genealogy of Morals*.[362] Nietzsche thought that there was a deep connection between the commitment to truth presupposed by modern science and nihilism. If Nietzsche is right, how can religion make its peace with science?

Nietzsche, as we have seen, placed Copernicus at the origin of our nihilism: "Since Copernicus, man seems to have got himself on an inclined plane — now he is slipping faster and faster away from the center into — what? into nothingness? into a *penetrating* sense of his own nothingness?" "Has the self-belittlement of man, his will to self-belittlement not progressed irresistibly since Copernicus? Alas, the faith in the dignity and uniqueness of man, in his irreplaceability in the great chain of being, is a thing of the past — he has become an animal, literally and without reservation and qualification, he who was, according to the old faith, almost God ('child of God', 'Godman')."[363]

Already Schopenhauer had recognized the nihilistic implications of our post-Copernican cosmology. Here the beginning of Volume Two of *The World as Will and Representation*: "In endless space countless luminous spheres, round each of which some dozen smaller illuminated ones revolve, hot at the core and covered with a hard cold crust; on this crust a mouldy film has produced living and knowing beings; this is

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[362] Friedrich Nietzsche, *Jenseits von Gut und Böse*, I, 1, *Sämtliche Werke, Kritische Studienausgabe*, ed. Giorgio Colli and Mazzino Montinari (Munich, Berlin, and New York: Deutscher Taschenbuch Verlag and de Gruyter, 1980), vol. 5, p. 15 and *Zur Genealogie der Moral*, III, 24, *Kritische Studienausgabe*, vol. 5, pp. 398-401.

[363] Nietzsche, *Zur Genealogie der Moral*, III, 25, *Kritische Studienausgabe*, 5: 404. Trans. Walter Kaufmann and R. J. Hollingdale, *On the Genealogy of Morals and Ecce Homo* (New York: Vintage, 1989), p. 155.

empirical truth, the real, the world."[364] Our science, knows nothing of privileged places, of absolute values, of home. And if what that science teaches us to accept as truth is identified with *the* truth, then, if we are to escape from nihilism, will we not have to cover up the truth or abandon it altogether? Could the insistence on *the* truth be an obstacle to living the good life? An obstacle to salvation or whatever might take the place of salvation given that death of God proclaimed by Nietzsche?

Nietzsche appropriated Schopenhauer's dismal if sublime vision in the very beginning of his youthful fragment *On Truth and Lie in an Extra-Moral Sense*, now so popular with post-modern critics weary of all centers: "Once upon a time, in some out of the way corner of that universe which is dispersed into numberless twinkling solar systems, there was a star upon which clever beasts invented knowing. That was the most arrogant and mendacious minute of 'world history,' but nevertheless, it was only a minute. After nature had drawn a few breaths, the star cooled and congealed, and the clever beasts had to die."[365] Nietzsche here emphasizes the immense disproportion between our life-time and the time of the world: does our post-Copernican universe, which threatens to reduce the time and space allotted to us to insignificance, care for us?[366] Was Nietzsche not right to insist that the progress that celebrates its triumphs in modern science and technology is necessarily attended by the specter of nihilism? The price of the rigorous pursuit of the facts of nature appears to be the progressive loss of whatever gives significance to human existence.

Pope Paul John II, to be sure, rejected this, calling science a universal good, to be freely pursued. But could Nietzsche have been right? If the pursuit of truth and nihilism should indeed be linked, it becomes easy to understand those who would take a step beyond nihilism by showing that what science takes to be truth is itself only a fiction; and

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[364] Arthur Schopenhauer, Die Welt als Wille und Vorstellung, vol 2 (Brockhaus: Wiesbaden, 1965), p. 3. Trans. *The World as Will and Representation*, vol. 2, trans. E. F. J. Payne (New York: Dover, 1966), p. 3.

[365] Friedrich Nietzsche, "Über Wahrheit und Lüge im aussermoralischen Sinne," Kritische Studienausgabe, vol. 1, p. 875; trans. "On Truth and Lie in an Unmoral Sense," *Philosophy and Truth. Selections from Nietzsche's Notebooks of the early 1870's*, trans. and ed, Daniel Breazeale (Atlantic Highlands: Humanities Press, 1979), p. 79.

[366] See Hans Blumenberg, Leb*enszeit und Weltzeit* (Frankfurt am Main: Suhrkamp, 1996).

it is not surprising that such sentiments should have found a welcome focus in a re-evaluation of the condemnation of Galileo. Can human beings ever claim to have seized *the* truth? Richard Rorty's *Mirror of Nature*[367] gives symptomatic expression to such a re-evaluation: in that book Rorty asks whether today we can "find a way of saying that the considerations advanced against the Copernican theory by Cardinal Bellarmine — the scriptural descriptions of the fabric of the heavens — were 'illogical' or 'unscientific'?" I want to make the opposite claim: we can draw such a distinction by appealing to the nature of truth. We don't just happen to endorse the values common to Galileo and Kant because we are the heirs of a certain rhetoric "about the importance of distinguishing sharply between science and religion." The commitment to objectivity that is a presupposition of science is inseparable from the pursuit of truth concerning the things that make up our world. To claim this, however, is not yet to claim to have answered the Nietzschean question of the value of that pursuit.

2

But how are we to understand this pursuit? What is truth? Most people, although perhaps no longer most philosophers, would seem to be quite untroubled by this old Pilate question, quite ready to say with Kant that the meaning of truth is correspondence and that this is so obvious that it can be *geschenkt, und vorausgesetzt*,[368] granted and presupposed without need for much discussion. The essence of truth is here thought to lie in the agreement of the judgment with its object.

To be sure, as Kant recognized, we use truth in different senses. He thus distinguished such "material (objective) truth" from a merely formal or logical truth, where knowledge agrees with itself, abstracting from all content, and from merely aesthetic or subjective truth, where our understanding agrees with the subject and what appears to it. Error results when we mistake what is merely subjective for what is

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[367] Richard Rorty, Philos*ophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979), pp. 328-333.

[368] Immanuel Kant, *Kritik der reinen Vernunft*, A 58/ B 82.

objective, mistake appearance for truth.[369] Here I am concerned first of all with the meaning and value of material, objective truth.

Just because it calls such truth into question, Kierkegaard's claim, "Truth is subjectivity," deserves some attention. Truth is understood here as "An objective uncertainty held fast in an appropriation-process of the most personal inwardness" — Kierkegaard was thinking of love and faith. This he calls "the highest truth attainable for an existing individual." In such attainment the individual perfects him- or herself. And did not Kant understand "truth" as "the essential and inseparable condition of all perfection of knowledge"?[370] Kant might have questioned whether such subjective truth deserves to be called a perfection of knowledge. And as the expression "objective uncertainty" suggests, Kierkegaard, knew very well that first of all "the question of truth is raised in an objective manner, reflection is directed objectively to the truth, as an object to which the knower is related."[371] But his distinction between subjective and objective truth helps to bring into focus what is at issue when Nietzsche raises the question of the value of truth: "The way of objective reflection makes the subject accidental, and thereby transforms existence into something indifferent, something vanishing. Away from the subject the objective way of reflection leads to the objective truth, and while the subject and his subjectivity become indifferent, the truth also becomes indifferent, and this indifference is precisely its objective validity; for all interest, like all decisiveness, is rooted in subjectivity."[372] How then can religion make its peace with the commitment to objectivity and a truth that threatens to transform the world into the totality of essentially indifferent facts? Galilean science had to call the Church's claim to a truth that saves into question. Not that the Church would have found it easy to accept Kierkegaard's Protestant "Truth is subjectivity": how can organized religion make its peace with a privileging of subjectivity that threatens to deny the Church its claim to truth? But what is truth?

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[369] Kant, *Logik*, A 69-A83
[370] Kant, *Logik* A 69.
[371] Søren Kierkegaard, *Concluding Unscientific Postscript*, trans. David F. Swenson and Walter Lowrie (Princeton: Princeton University Press, 1974), pp. 182, 178.
[372] Ibid., p. 173.

Thomas Aquinas defined truth as "the adequation of the thing and the understanding": *Veritas est adaequatio rei et intellectus*.[373] The definition claims that there can be no truth where there is no understanding. But can there be understanding without human beings? Does truth then depend on human beings? This would imply that there can be no eternal truths, unless human beings will be forever. But must we not dismiss that implication? When I claim some assertion to be true, I claim it, not just subjectively, here and now, but for all time, provided that I have taken into account all the relevant relativities. "Today the sun is shining" may not be true tomorrow or in some other place; but that does not mean that the state of affairs expressed in the assertion is not true *sub specie aeternitatis* and can be restated in language that removes the relativities. But does the definition of truth as the adequation of the thing and the understanding allow for such an understanding of truth? Is human life here on earth more than an insignificant cosmic episode? Consider once more the fable with which Nietzsche, borrowing from Schopenhauer, begins "On Truth and Lie in an Extra-Moral Sense." Nietzsche here calls attention to the disproportion between the human claim to truth and our peripheral location in the cosmos and the ephemeral nature of our being. Must the time not come, when there will no longer be human beings, when there will be no understanding, and hence no truth?

Thomas Aquinas, to be sure, like any believer in the Biblical God, including the self-proclaimed Catholic astronomer Galileo, would have had no difficulty answering Nietzsche. His understanding of God left no room for thoughts of a cosmos from which understanding would be absent. His was a theocentric understanding of truth where we should note that the definition *veritas est adaequatio rei et intellectus* invites two readings: *veritas est adaequatio intellectus ad rem*, "truth is the adequation of the understanding to the thing" and *veritas est adaequatio rei ad intellectum*, "truth is the adequation of the thing to the understanding." And is the second not presupposed by the first? Is there not a sense in which the truth of our assertions presupposes the truth of things or ontological truth? If we are to measure the truth of an assertion by the thing asserted, that thing must disclose itself as it really is, as it is in truth. But what could

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[373] Thomas Aquinas, *Questiones disputatae de veritate*, qu. 1, art. 1.

"truth" now mean? Certainly not an adequation of the thing to our finite, perspective-bound understanding: that would substitute appearances for the things themselves.

Theology once had a ready answer: every created thing necessarily corresponds to the idea preconceived in the mind of God and in this sense cannot but be true. The truth of things, understood as *adaequatio rei (creandae) ad intellectum (divinum)* secures truth understood as *adaequatio intellectus (humani) ad rem (creatam)*.[374] Human knowing here is given its measure in the divinely created order of the cosmos. Copernicus and Galileo considered themselves good Christians. They would not have quarreled with any of this. And such talk of the truth of things does accord with the way we sometimes use the words "truth" and "true": e.g., when we call something we have drawn "a true circle," we declare it to be in accord with our understanding of what a circle is. What we have put down on paper accords with an idea in our intellect. Here the truth of things is understood as *adaequatio rei (creandae) ad intellectum (humanum)*.

But what right do we have to think that we can bridge the abyss that separates God's infinite creative knowledge from our finite human understanding? Nietzsche was to insist that there is no such bridge. If we were to seize the truth, he claims in "On Truth and Lie," our designations would have to be congruent with things. Nietzsche here understands truth as, not just a correspondence, but as the congruence of designation and thing: pure truth, according to Nietzsche, thus would be nothing other than the thing itself.[375] This recalls the traditional view that gives human discourse its measure in divine discourse. God's creative word is nothing other than the truth of things. Here, too, our speaking is thought to have its measure in the identity of word (logos) and being. In this strong sense, truth is of course denied to us finite knowers.

Kant would have agreed with this claim: if we understand truth as the correspondence of our judgments and things in themselves, understood as noumena, another term that names the truth of things, then there is no truth available to us for Kant either. But Kant does not conclude, as Nietzsche does, that therefore we cannot give a

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[374] See Martin Heidegger, "Vom Wesen der Wahrheit," *Wegmarken, Gesamtausgabe*, vol. 9 (Frankfurt am Main: Klostermann, 1976), pp. 178-182.

[375] Nietzsche, "Über Wahrheit und Lüge," *Kritische Studienausgabe,* vol. 1, p. 879; trans. p. 82.

transcendental justification of the human pursuit of truth. To be sure, theory cannot penetrate beyond phenomena; things as they are in themselves are beyond the reach of what we can objectively know. But this does not mean that the truth pursued by science is therefore itself no more than a subjective illusion. The truth of phenomena provides sufficient ground for science and its pursuit of truth. Key to our understanding of that truth is this thought: to understand that what we experience is only an appearance, bound by a particular perspective, is to be already on the road towards a more adequate, and that means here first of all less perspective-bound and in this sense freer understanding. The pursuit of truth demands a movement of self-transcendence that, by leading us to understand subjective appearance for what it is, opens a path towards a more adequate, more objective understanding. The pursuit of truth demands objectivity.

5

Kant had good reason to want to distinguish phenomena from things in themselves and to insist that what science pursues is the truth of phenomena. What is at stake is hinted at by Patrick Heelan when he agrees with Husserl that mathematical models, while they may provide computational power, "do not illuminate the things that comprise nature or provide the categories for natural objects." Heelan speaks of the "objectivism" of Galilean science. "Objectivism implies that the description provided by scientific theory (and its mathematical model) ought for the purposes of philosophy to replace the language of the direct experience of the life world."[376] I have argued here that scientific theory ought to replace the language of the direct experience of the life world to the extent that such theory is the pursuit of the truth of the phenomena that make up nature. Can a different meaning be given to the truth of things? No doubt, but, I would claim, only at the price of objectivity.

As Kant recognized, there is a sense in which nature or reality is elided by the very pursuit of objective truth. Such an elision is inscribed into the conception of reality or the metaphysics of nature that is presupposed by science, as inaugurated by Copernicus and

[376] Heelan, p. 159.

Galileo. Science aims at a perspicuous representation of the world that ideally would include everything that deserves to be called real. In the *Tractatus* Wittgenstein offers us this example:

> 6.341 Newtonian mechanics … brings the description of the universe to a unified form. Let us imagine a white surface with irregular black spots. We now say: Whatever kind of picture these make I can always get as near as I like to its description, if I cover the surface with a sufficiently fine square network and now say of every square that it is white or black. In this way I shall have brought the description of the surface to a unified form. This form is arbitrary, because I could have applied with equal success a net with a triangular or hexagonal mesh. It can happen that the description would have been simpler with the aid of a triangular mesh; that is to say, we might have described the surface more accurately with a triangular, and coarser, than with the finer square mesh, or vice versa, and so on. To the different networks correspond different systems of describing the world. Mechanics determine a form of description by saying: All propositions in the description of the world must be obtained in a given way from a number of given propositions — the mechanical axioms. It thus provides the bricks for the building of the edifice of science, and says: Whatever building thou wouldst erect, thou shalt construct it in some manner with these bricks and these alone.

Reality is here pictured as a page bearing irregular black spots. Science covers this picture with a network and proceeds to represent the original picture by filling in the proper areas, where we should keep in mind what is sacrificed here for ease of representation: the irregularity of the black spots which stand here for what disinterested, unprejudiced observation determines to be the case. By its very project, science so understood tends to elide reality, tends to mistake reality for what it can represent. And it is therefore not surprising that in the *Tractatus* Wittgenstein himself should elide that rift between reality and its scientific representation to which his own picture calls our attention, when he identifies the world with the facts in logical space (1.13), instead of being content with the more modest formulation: the scientific world-picture represents nature in logical space (cf.2.11).

Wittgenstein's scientist is a builder who uses for his building-blocks thoughts or propositions. That such objectification has to transform that reality in which we find ourselves

first of all and most of the time is evident: our first access to reality is always bound to particular perspectives, mediated by our bodies, colored by our concerns and interests. But as soon as we understand a perspective as such, in thought at least we are already beyond the limits it would impose. Such reflection on perspective and point of view leads inevitably to the idea of a subject that, free of all perspectives, understands things as they really are. And it leads with equal necessity to the thought that the reality that gives itself to our eyes, and more generally to our senses, is the mere appearance of an objective reality no eye can see, no sense can sense, that only a rational thinking can attempt to reconstruct.

The scientific pursuit of truth demands objectivity. And objectivity demands that we not allow our understanding to be clouded by our inevitably personal desires and interests. It wants just the facts. With good reason Wittgenstein could therefore say: "In the world everything is as it is and happens as it does happen. In it there is no value — and if there were, it would be of no value" (6.41). It would be just another fact that, like all facts, could be other than it happens to be. If there is something that deserves to be called a value, it will not be found in the world of science. To find it we have to step outside that world. And the same goes for freedom. That means that persons as persons are not part of the scientific world picture. They are ruled out by the form of representation that governs it. This is why Nietzsche can say, stone is more stone than it used to be.[377] Matter has become just a mute given that happens to be that way.

But is this not to say that whatever makes life meaningful must be sought outside the reality known to science? Heidegger makes this elision of meaningful reality a defining feature of our age, of what he calls the "Age of the World Picture": "When we think of a 'picture' we think first of all of a representation of something. Accordingly the world-picture would be, so to speak, a picture of what is in its entirety. But 'world-picture' says more. We mean by this term the world itself, what is in its entirety, as it measures and binds us."[378] To the world so understood we, too, belong, for it is said to include all that is. The world-picture thus transforms itself into something like a house,

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[377] Nietzsche, *Menschliches, Allzumenschliches*, I, 218, *Kritische Studienausgabe*, vol. 2, p.p. 178-179.

[378] Martin Heidegger, "Die Zeit des Weltbildes," in *Holzwege, Gesamtausgabe*, vol. 5 (Frankfurt am Main: Klostermann, 1977), p. 89.

into a building, in which we, too, have our place. If this world-picture is to include all that is, it cannot have an outside. But this means the loss of what Kant calls things in themselves, and every time we experience a person as a person we experience such a thing in itself. There is no experience of persons as such without at least a trace of respect. In this sense we can agree with Kierkegaard that subjective truth is higher than objective truth, where we must resist the temptation to translate such subjective truth into some version of objective truth, as phenomenology so often has attempted to do. To the extent that the modern world is indeed what Heidegger calls "the age of the world-picture" it has become a prison that denies us access to the reality of persons and things. To experience the aura of the real that gives to persons and things their proper weight we have to escape from that prison, have to open a door, or at least a window in the world building scientific understanding has raised, a window to the truth of things, but now "truth" may no longer be understood as objective truth. The Church was thus right to deny that the truth that mattered to faith, and we can extend the point and, following Kierkegaard, say the truth that matters to existing individuals, should take second place to the truth that matters to science. But the Church was wrong to think that the truth that matters to faith be understood as objective truth. Copernicus and Galileo put the pursuit of objective truth on the right track. But just because they did, it remains important to consider both the legitimacy and the limits of that pursuit.