

V. THE 17th AND 18th CENTURIES

Though there were a number of lesser philosophers during the Renaissance, the first truly magnificent philosophical system of the modern period was that of the Frenchman . . .



RENÉ DESCARTES (1596-1650)

Descartes may not have been very good looking, but he was SMART!

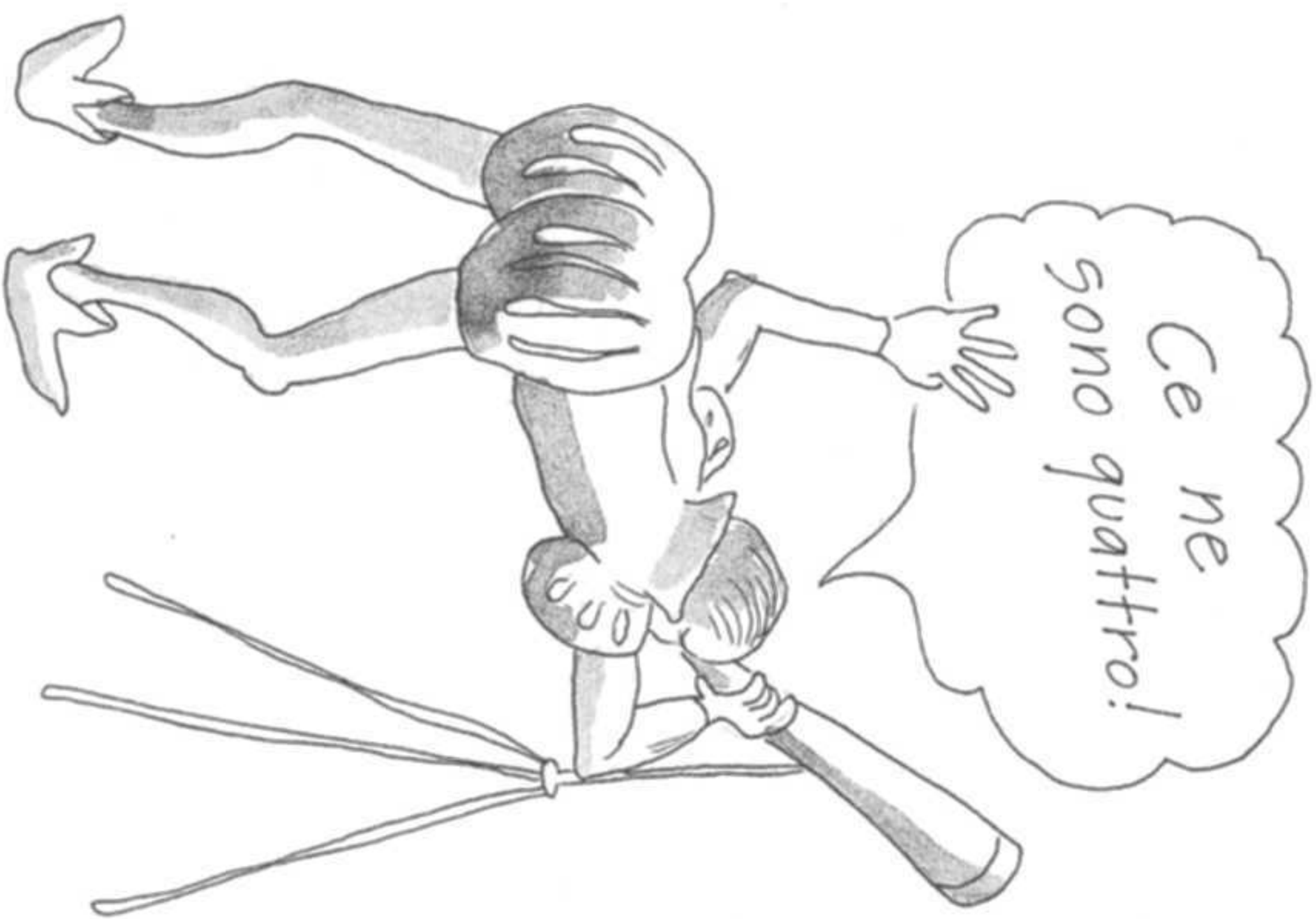


Descartes first carved a niche for himself in the pantheon of intellectual giants by discovering ANALYTICAL GEOMETRY, thereby fulfilling the old Pythagorean dream of demonstrating the relation between plane geometry and pure algebra.

Having made his contribution to math, in 1633 Descartes was about to publish his manuscript on physics, but when it dawned on him that seventeen years earlier Galileo Galilei had been arrested by the Inquisition for teaching views about the physical world that were very close to Descartes's own views, Descartes ran, did not walk, to his publisher to withdraw his manuscript.

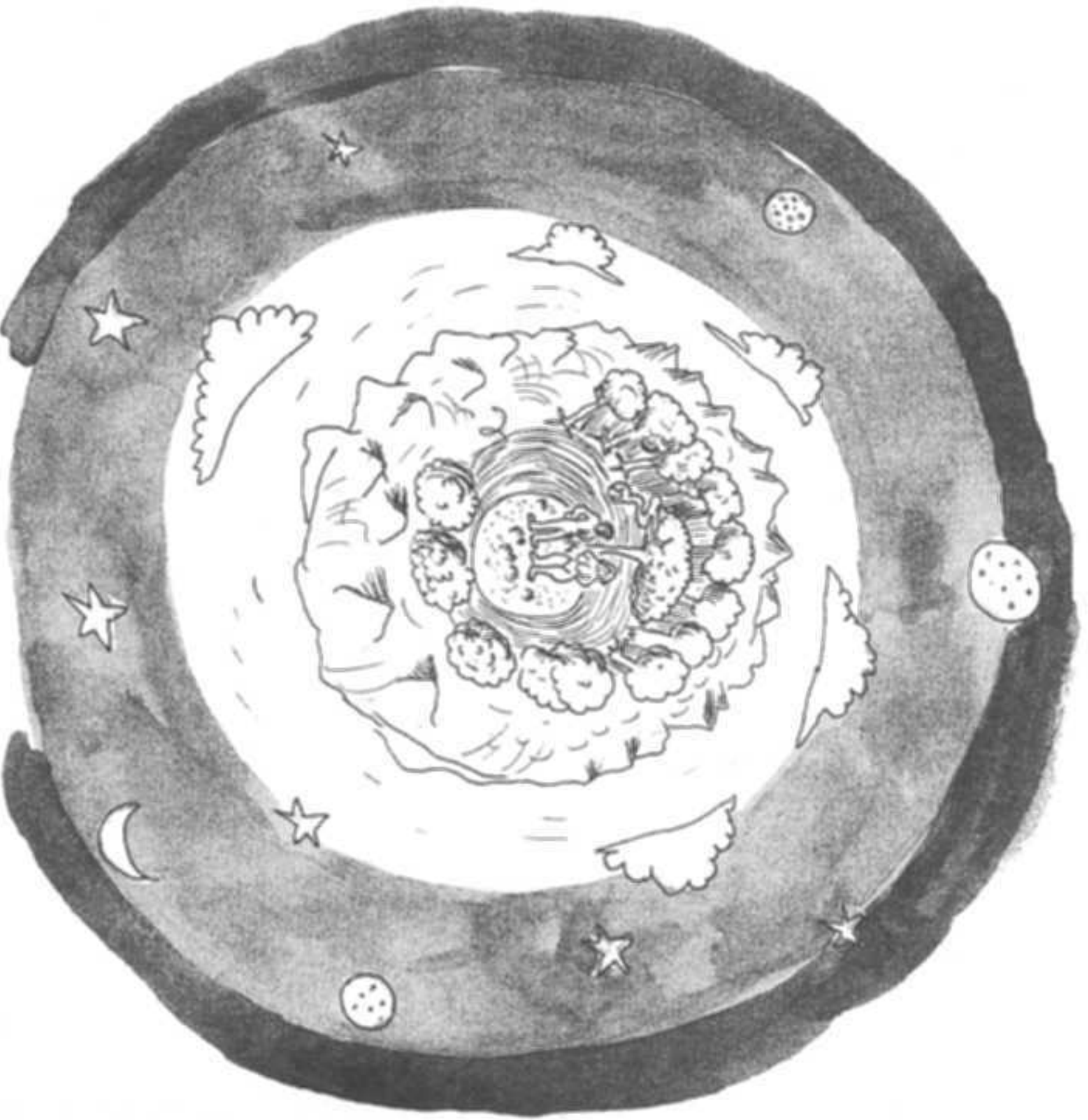


Galileo's crime had been to peer through his newly invented telescope and discover that the planet Jupiter had four moons.

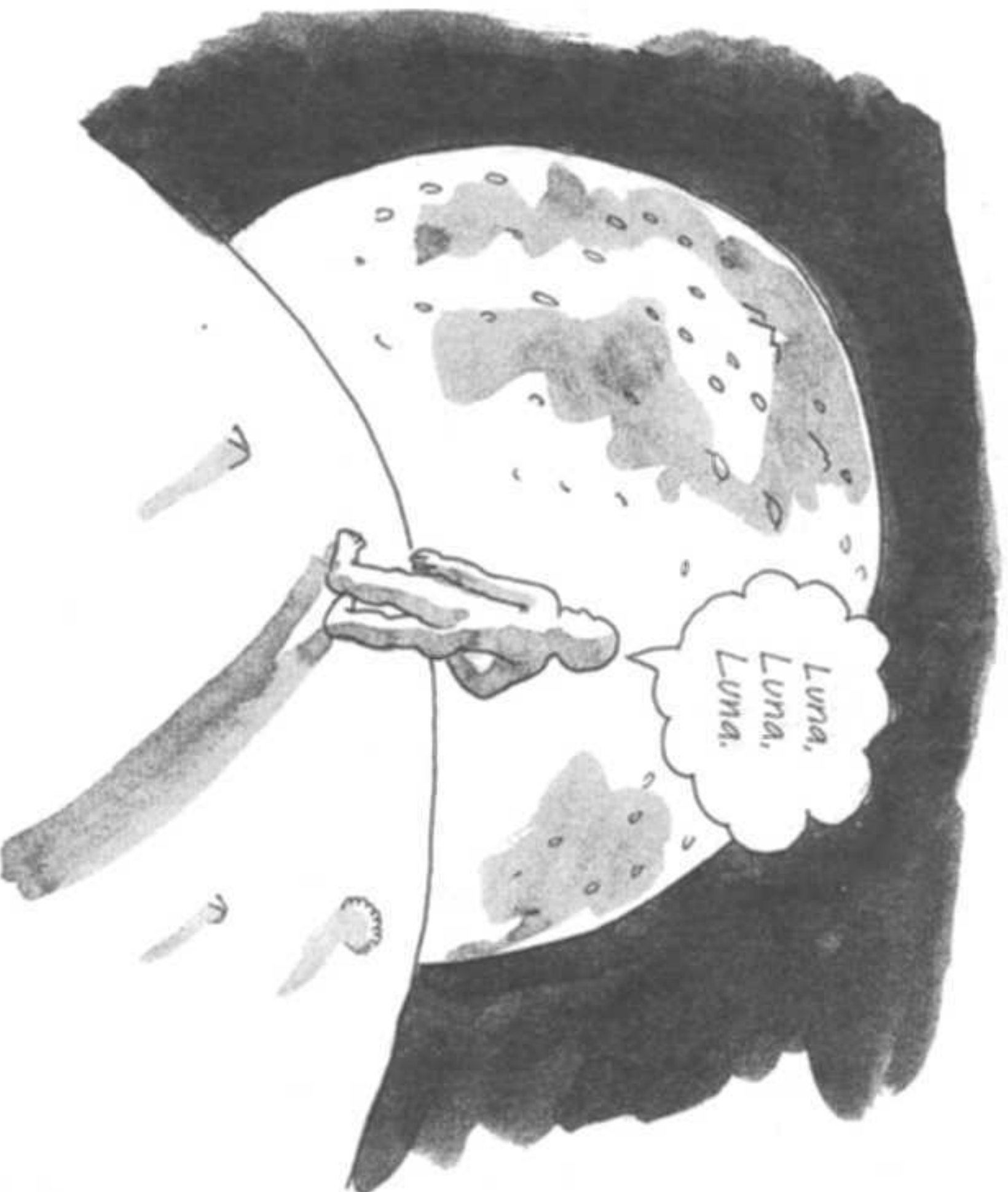


Why should anybody care? Least of all, why should the Brothers of the Inquisition care?

Because the Renaissance mind had inherited from the medieval world the view that the Garden of Eden was the belly button of the universe and that God had created the rest of the cosmos in concentric layers around the stage of the human drama.



Of course, there had been rumors floating around that the sun and not the earth was the center of the planetary system, but the scientific evidence against that view was the undisputed fact that the moon orbits the earth. If the sun is the center of everything, then why doesn't the moon orbit the sun instead of the earth?



So, if Galileo proved that Jupiter has four moons that orbit it, then he had pulled the last strut out from under the geocentric theory of the universe. As Freud was to say later, this was the first of the three major blows against the human's conception of his own self-importance.

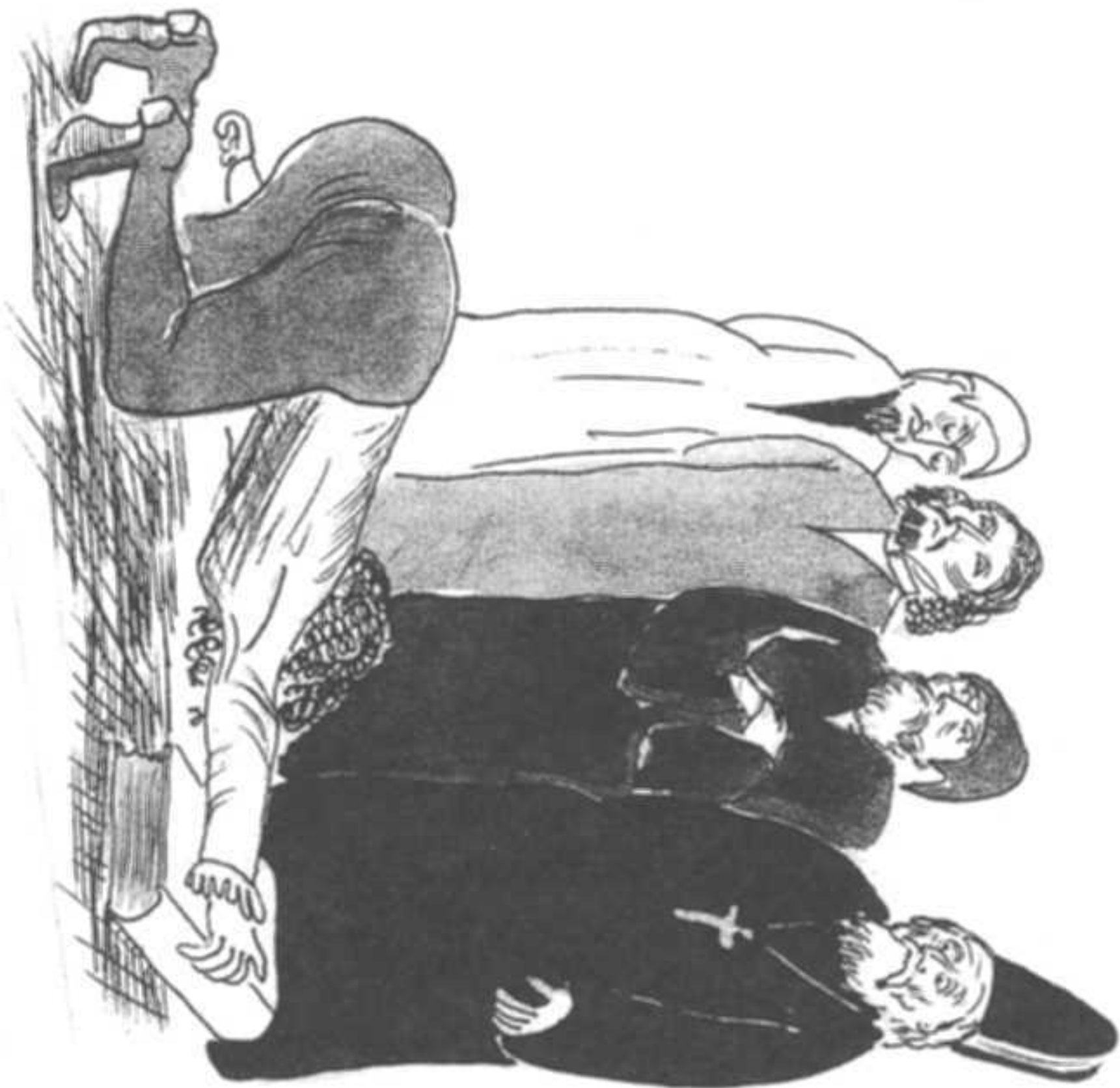


(The other two were Darwin's revelation that we are only animals and Freud's discovery that we are SICK animals.) It was too much for the Brothers of the Inquisition, so off went Galileo to jail.



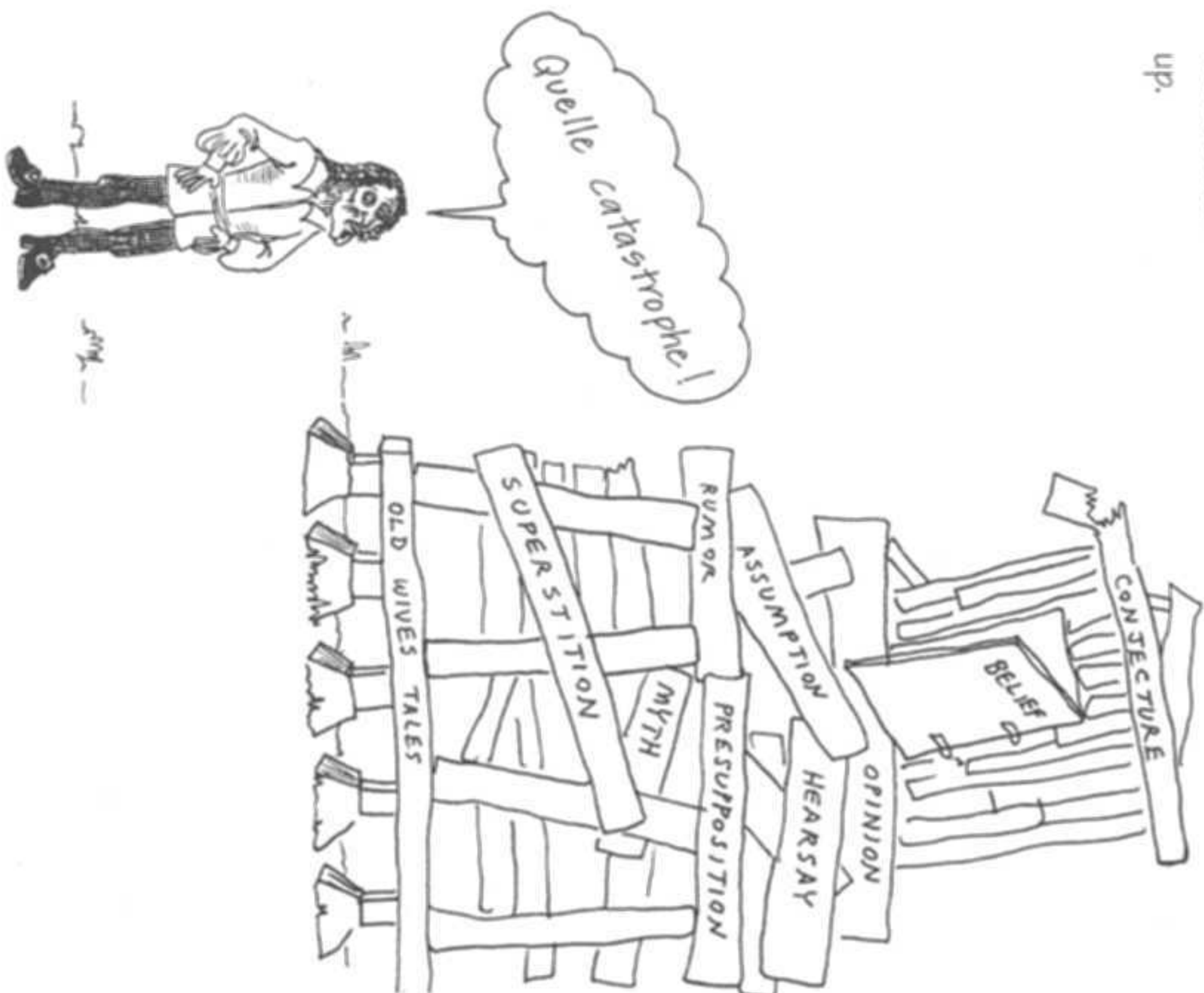
Descartes was a good but modern Catholic. He believed the Church had made a big mistake in the Galileo episode. He correctly saw that if religion tried to stem the tide of science, religion would be swept away. But Descartes did not want to have to go to jail to prove it.

So he decided to ease his ideas about physics onto an unsuspecting religious establishment by smuggling them into a book of philosophy, called *Meditations*, which, in a groveling and self-effacing manner, he dedicated to "the Most Wise and Illustrious Doctors of the Sacred Faculty of Theology in Paris."

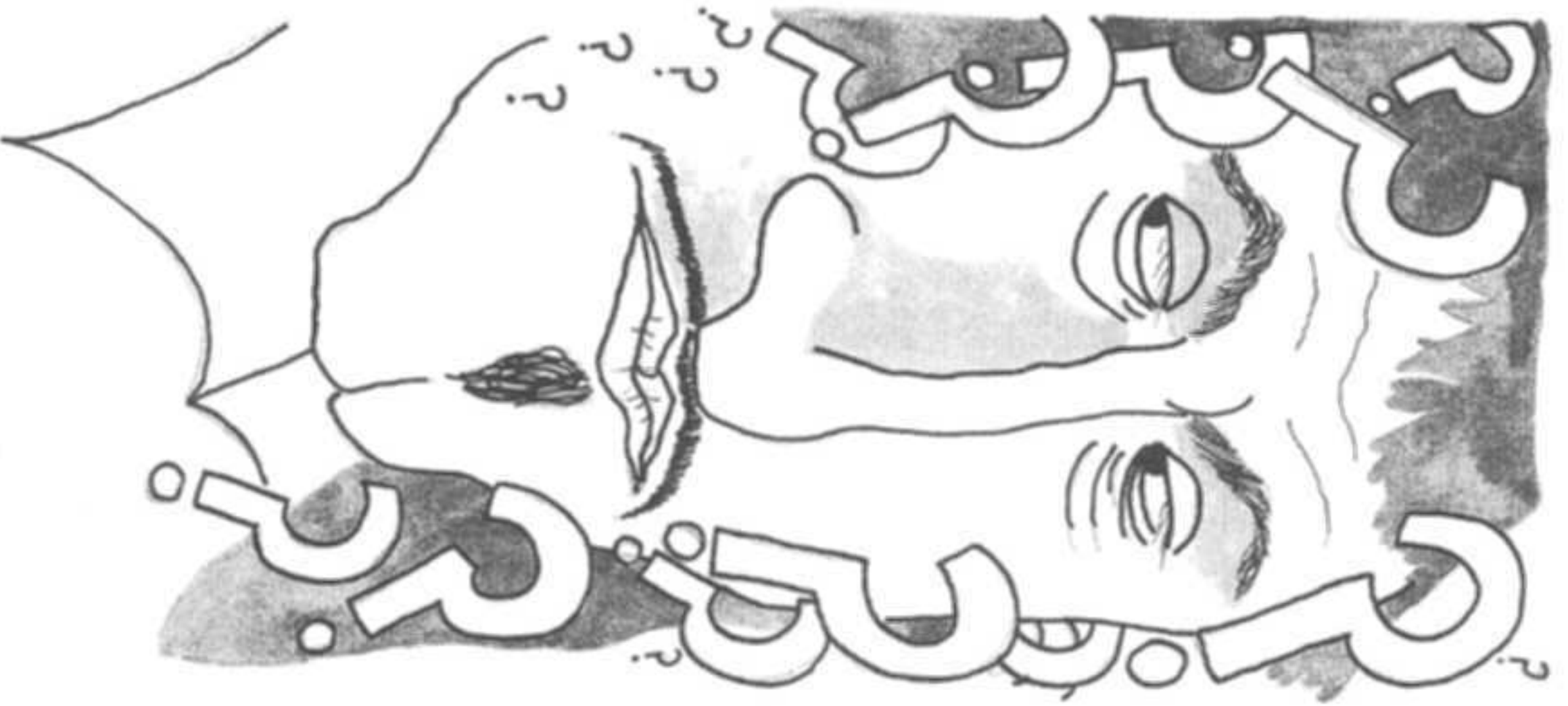


Meanwhile, to his friend he wrote, "... the six *Meditations* contain all the fundamental ideas of my physics. But please keep this quiet." Descartes hoped that the theologians would be convinced by his arguments before they realized that their own views had been refuted.

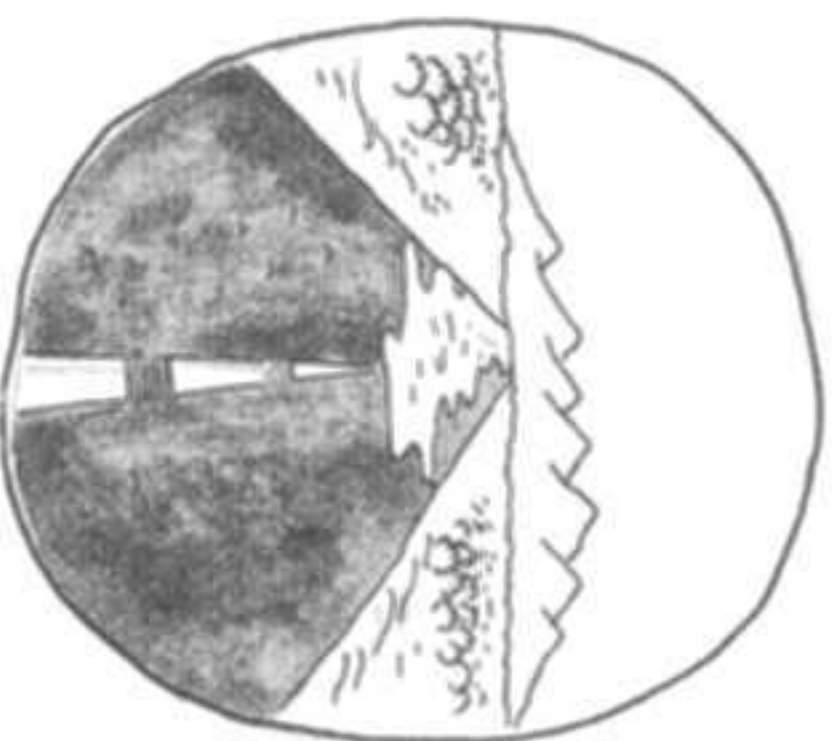
In his *Meditations on First Philosophy*, Descartes announced a massive intellectual project. He related his intention to tear down the edifice of knowledge and rebuild it from the foundations up.



To discover a firm foundation of absolute certainty upon which to build his objective system of knowledge, Descartes chose a method of "radical doubt," whose motto was "*De omnibus dubitandum*,"—"everything is to be doubted. So Descartes would doubt away anything that could possibly be doubted, no matter how weak the grounds were for doubting, until he could discover a proposition that was logically indubitable. This proposition, if it existed, would be the absolutely certain foundation of all knowledge.



Descartes's point is clear. We all know about optical illusions (the "bent oar" in the pond, the "water" on the road, the tracks which "meet at the



Descartes began his philosophical journal while sitting at his desk in front of the fire. He wrote, "Everything that I have hitherto accepted has been learned from the senses." But the senses are known deceivers, and it is not prudent ever to trust a known liar.

horizon"), as well as illusions associated with the other senses. So in one fell swoop, radical doubt had deprived Descartes of all sensory information.



But Descartes immediately felt he had gone too far. Only a madman could stare at his hands and wonder if they really were his hands. It seemed that in one step, radical doubt had led not to philosophy but to lunacy.

But then Descartes recalled that on other occasions he had believed he was sitting before the fire, looking at his hands, only to awaken later to discover that it all was a dream. Much to his amazement, Descartes realized that there is no test to prove with absolute certainty that at any given moment one is not dreaming. (Any test you can think, you can dream, so it's no test at all.)



Therefore, consistent with radical doubt, Descartes assumed that it was always possible that he was dreaming. This totally undermined the possibility that the senses could provide us with certain knowledge.

What about mathematics? Perhaps it can be a candidate for absolute certainty. Descartes said, "Whether I am



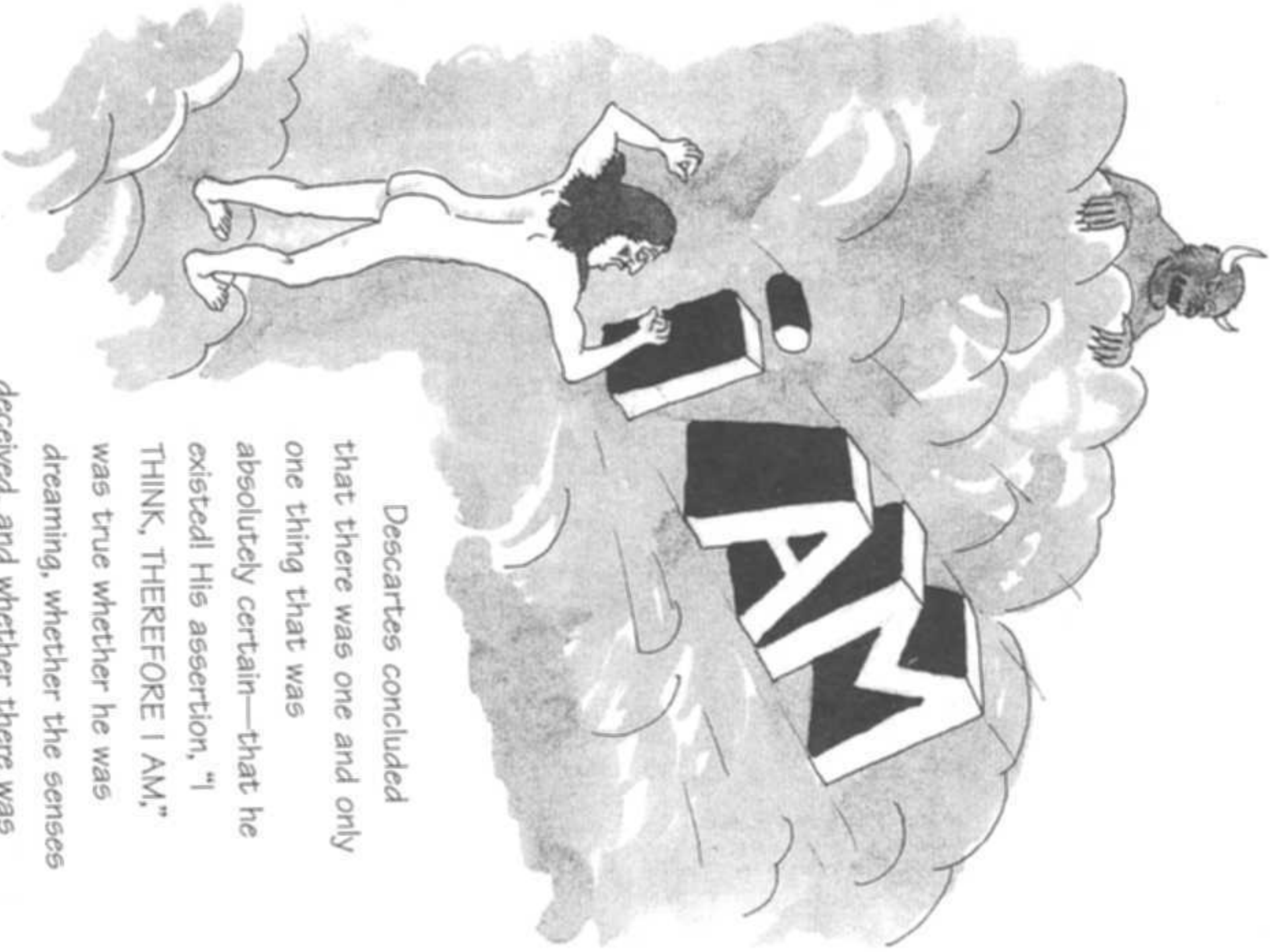
asleep or awake, 2 and 3 are 5, and a square has no more than four sides." But radical doubt required Descartes to suspect even the simplest propositions of arithmetic if there was any reason for doing so. Well, what if the Creator of the universe

$$2 + 3 = 5$$

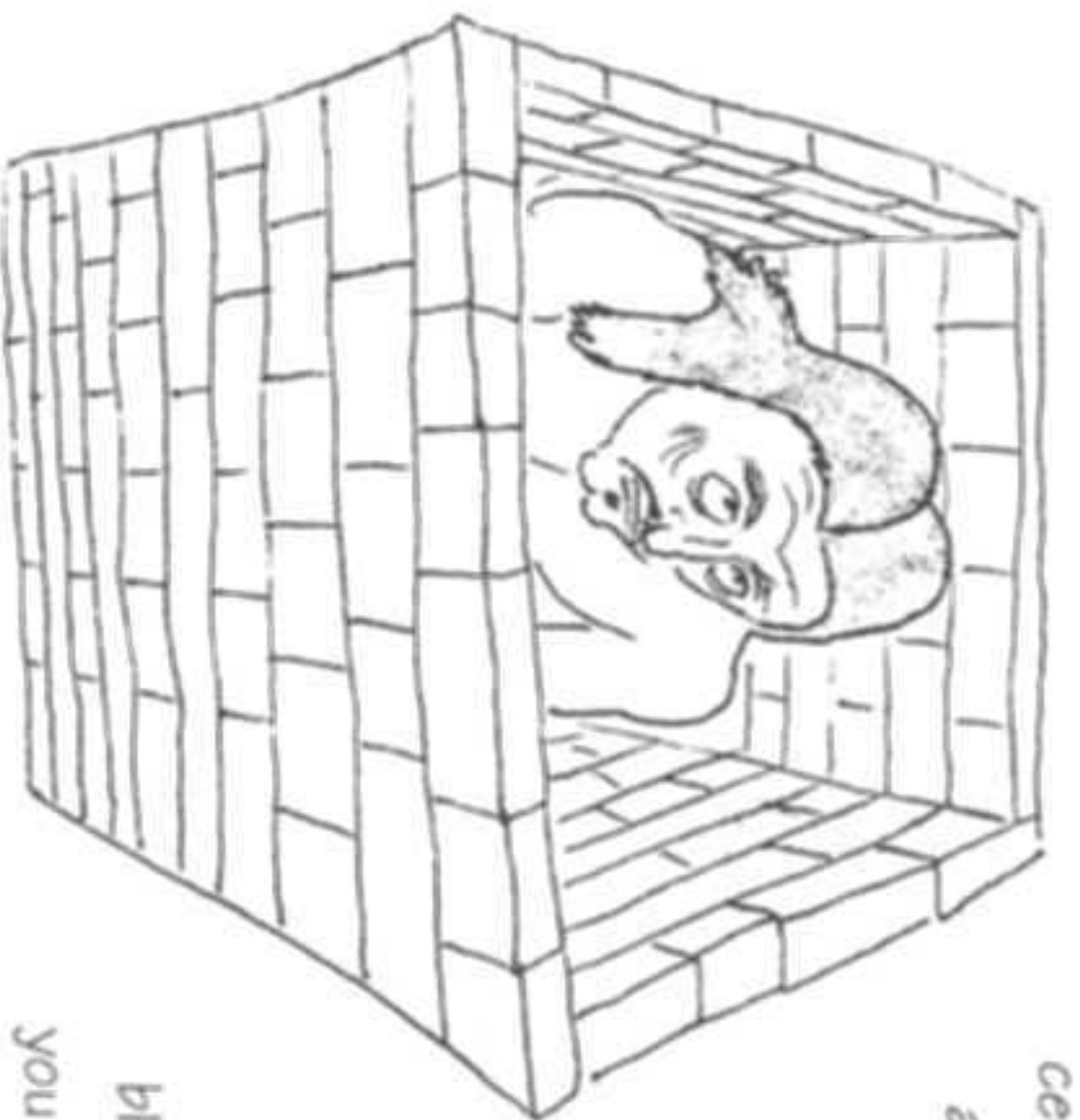
was not the benevolent God of Catholicism, but an Evil Genius, a malevolent demon whose sole purpose was that of deception, . . . so that even the most simple mathematical judgment would always be false? Could Descartes know for sure that such a demon did not exist?



No! There existed the logical possibility that Descartes's mind was being controlled externally by a malevolent force. So Descartes assumed that all the world was nothing but the dream of the Evil Genius. Descartes asked, under these conditions could anything be certain?



Descartes concluded that there was one and only one thing that was absolutely certain—that he existed! His assertion, "I THINK, THEREFORE I AM," was true whether he was dreaming, whether the senses deceived, and whether there was an Evil Genius. It was, in fact, necessarily true. It could not be denied or even doubted without self-contradiction. (Try it! If you say "I doubt that I exist" haven't you in fact proved that you do exist?)



Having discovered certainty in selfhood and having established that his self was his consciousness (for it is possible to doubt that you have a body, but it is impossible to doubt that you have a mind; therefore, your self and Descartes must now find a way of escaping the confines of his own subjectivity and establishing the existence of an external world. To do so, he analyzed the contents of his mind and discovered it contained certain innate ideas (shades of Plato), including these:



these:

Using a version of St. Anselm's
"ontological argument"

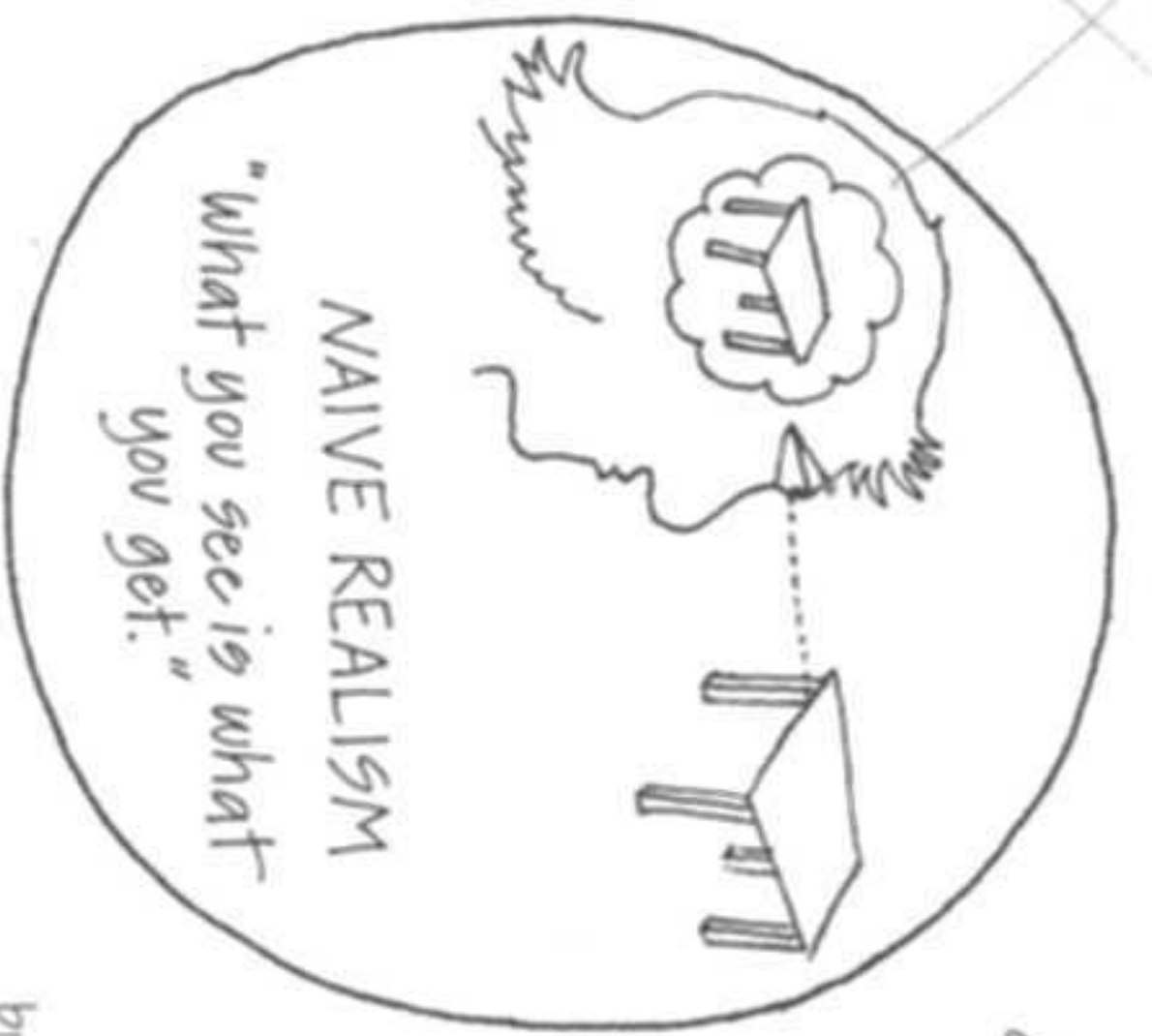
(remember, it was a priori,
making no appeal to
the external
world—



a world that for
Descartes did not
yet exist), he
"proved" God's exis-
tence, thereby dispos-
ing of the Evil Genius.
(A perfect, omnipotent,
omnibenevolent God would not
allow such a Deceiver to exist.)

Thereby, Descartes recovered math into his system
(the only objection to math had been the Evil Genius
hypothesis). By applying math to his innate idea of corpo-
real substance, Descartes came up with what he took to
be the correct account of reality—the world as known by
mathematical physics. Descartes had pulled it off. He
showed that you can have both God and Galileo!

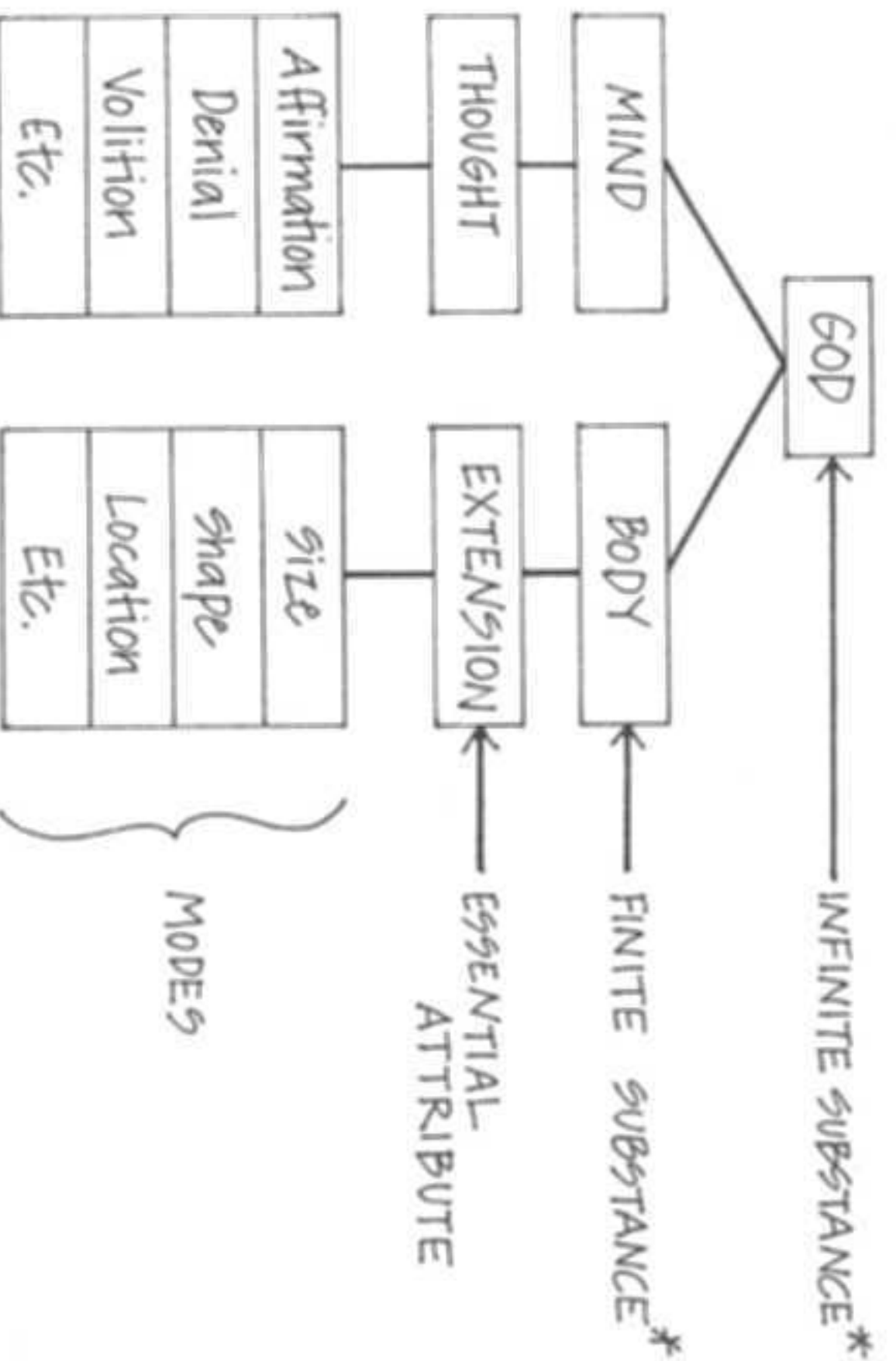
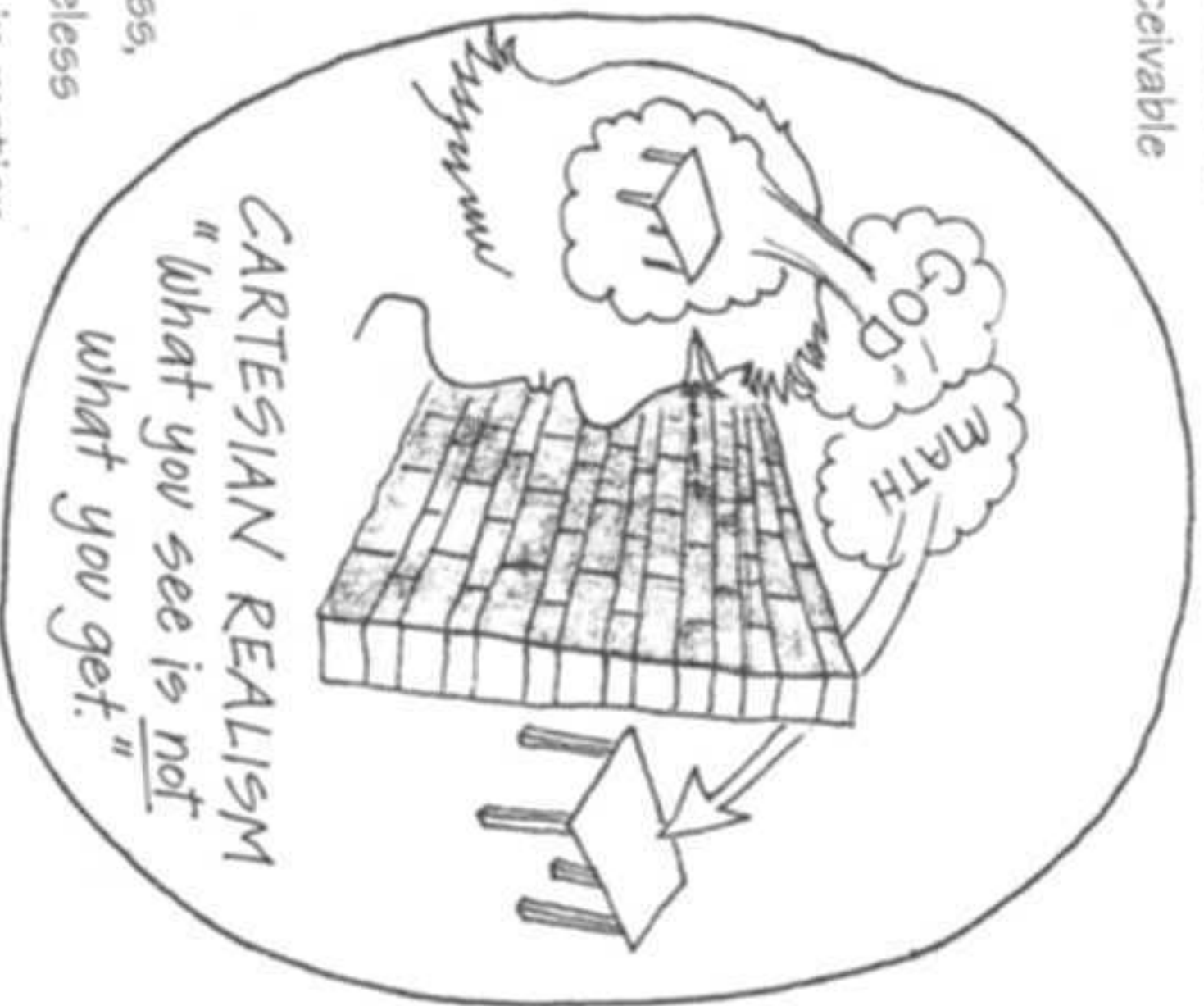




However, Descartes did leave himself with a few problems. First, he had replaced the commonsense view of the relation between self and world (what philosophers call "naive realism") ... but he replaced it with a most circuitous

route, indeed. Second, he assigned all perceivable

qualities ("red," "blue," "sweet," "warm," "melodious") to the mind and left only mathematically measurable quantities in the external world—a cold, colorless, odorless, soundless, tasteless world of matter in motion.



*SUBSTANCE is defined as "an existent thing that requires nothing but itself in order to exist."

Furthermore, Descartes's picture of the world was hopelessly divided into substances that were defined in ways that mutually excluded each other. How could the mental world (a nonspatial, purely spiritual sphere) have any effect on the physical world of crass matter, and vice-versa, in this radically dualistic scheme of things? Descartes tried to solve the problem by claiming that MIND meets BODY at the center of the brain, in the pineal gland. (It should have been obvious that this solution would not work.)



No matter WHERE mind meets body, at that place it becomes body, since it then has location, which is a mode of physical substance. At this point, Descartes conveniently died of the common cold while visiting his benefactress, Queen Christina of Sweden, in order to explain to her the function of the pineal gland. Thereby, he left to his followers the legacy of his radical dualism.