



Micromegas

VOLTAIRE

Musean Translation

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Translated by Michael Berardi

MOUSEIA

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TRANSLATOR

Michael Berardi

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Chapter I



Journey of an inhabitant of the world of the star Sirius to the planet Saturn.

On one of the planets that circle the star called Sirius lived a young man of considerable wit, whom I had the honor of knowing on his last visit to our little anthill. His name was Micromegas, a name well suited to all the great. He stood eight leagues tall: by eight leagues I mean twenty-four thousand geometrical paces of five feet each.

Certain geometers, people always useful to the public, will at once take up their pens and find that, since Mr. Micromegas, an inhabitant of the country of Sirius, measures twenty-four thousand paces from head to foot, making one hundred and twenty thousand royal feet, while we citizens of Earth are scarcely five feet tall, and our globe is nine thousand leagues around—they will find, I say, that the globe which produced him must necessarily have exactly twenty-one million six hundred thousand times the circumference of our little Earth. Nothing in nature could be simpler or more ordinary. The states of certain sovereigns of Germany or Italy, which one can walk around in half an hour, compared with the empire of Turkey, Muscovy, or China, offer only the faintest image of the prodigious differences nature has placed among all beings.

His Excellency being as tall as I have said, all our sculptors and painters will readily agree that his waist might measure fifty thousand royal feet around: a very handsome proportion. His nose being a third of his handsome face, and

his handsome face a seventh of the height of his handsome body, we must admit that the Sirian's nose measures six thousand three hundred and thirty-three royal feet and a fraction—which was to be demonstrated.

As for his mind, it is among the most cultivated we have. He knows a great many things and has invented a few. He was not yet two hundred and fifty, and was studying, as custom required, at the most celebrated college on his planet, when by sheer force of intellect he worked out more than fifty propositions of Euclid. That is eighteen more than Blaise Pascal, who, after working out thirty-two for amusement, according to his sister, later became a rather mediocre geometer and a very bad metaphysician. Around his four hundred and fiftieth year, as he emerged from childhood, he dissected many of those little insects less than a hundred feet in diameter that elude ordinary microscopes. He made a most curious book of them, but it brought him some trouble. His country's mufti, a great quibbler and profoundly ignorant, found propositions in his book that were suspect, offensive to pious ears, rash, heretical, and savoring of heresy, and pursued him vigorously. The question was whether the substantial form of the fleas of Sirius was of the same nature as that of snails. Micromegas defended himself with wit; he won the women to his side; the lawsuit lasted two hundred and twenty years. At last the mufti had the book condemned by lawyers who had not read it, and the author was ordered not to appear at court for eight hundred years.

He was only moderately distressed to be banished from a court filled with nothing but intrigue and pettiness. He wrote a very amusing song against the mufti, who took little notice, and began traveling from planet to planet to finish educating his *mind and heart*, as the saying goes. Those who travel only by post chaise or carriage will doubtless be astonished at the conveyances up there; for we, on our little heap of mud, conceive of nothing beyond our own customs. Our traveler had a marvelous knowledge of the laws of gravitation and all the attractive and repulsive forces. He used them so aptly that, now with the aid of a sunbeam, now with the convenience of a comet, he and his people passed from globe to globe as a bird flits from branch to branch. He crossed the Milky Way in a short time; and I am obliged to confess that among the stars strewn

through it he never saw that fine empyrean heaven which the illustrious vicar Derham boasts of having seen at the end of his telescope. Not that I mean to suggest Mr. Derham saw badly—God forbid! But Micromegas was on the spot, he is a good observer, and I wish to contradict no one. After much wandering, Micromegas reached the globe of Saturn. Accustomed as he was to new sights, he could not at first, on seeing how small the globe and its inhabitants were, suppress that smile of superiority which sometimes escapes even the wisest. After all, Saturn is scarcely nine hundred times larger than Earth, and its citizens are dwarfs only a thousand fathoms tall or thereabouts. At first he made a little fun of them with his people, much as an Italian musician laughs at Lulli's music when he comes to France. But, having a sound mind, the Sirian soon understood that a thinking being need not be ridiculous merely because he stands only six thousand feet tall. Having astonished the Saturnians, he grew familiar with them. He formed a close friendship with the secretary of the Academy of Saturn, a man of considerable wit who had, it is true, invented nothing, but gave a very good account of other people's inventions and was reasonably good at little verses and large calculations. For the reader's satisfaction, I will relate here a singular conversation Micromegas had one day with Mr. Secretary.

Chapter II



Conversation between the inhabitant of Sirius and the inhabitant of Saturn.

After His Excellency had lain down and the secretary had drawn near his face, Micromegas said, "We must admit that nature is wonderfully varied." "Yes," said the Saturnian, "nature is like a flower bed whose blossoms..." "Oh," said the other, "leave your flower bed alone." "She is," the secretary resumed, "like a gathering of blondes and brunettes whose ornaments..." "What have I to do with your brunettes?" said the other. "Then she is like a picture gallery whose outlines..." "No, no!" said the traveler. "Once again, nature is like nature. Why hunt for comparisons?" "To please you," replied the secretary. "I do not want to be pleased," replied the traveler; "I want to be instructed. Begin by telling me how many senses the people of your globe possess." "We have seventy-two," said the academician, "and every day we complain of having so few. Our imagination reaches beyond our needs. With our seventy-two senses, our ring, our five moons, we find ourselves too confined; and despite all our curiosity and the fairly large number of passions arising from our seventy-two senses, we have ample time to be bored." "I can well believe it," said Micromegas, "for on our globe we have nearly a thousand senses, and still there remains some vague desire, some uneasiness, which constantly reminds us how little we are and that there are beings far more perfect. I have traveled a little; I have seen mortals far beneath us, and others far above us. But I have seen none whose desires did not exceed their real needs, and whose needs did not exceed their sat-

isfactions. Perhaps one day I shall reach the country where nothing is lacking; so far no one has given me definite news of it." The Saturnian and the Sirian then exhausted themselves in conjecture; but after much reasoning, very ingenious and very uncertain, they had to return to facts. "How long do you live?" asked the Sirian. "Oh, a very short time," replied the little man of Saturn. "Just as with us," said the Sirian. "We are always complaining of how little time we have. It must be a universal law of nature." "Alas!" said the Saturnian, "we live only five hundred great revolutions of the sun." (That amounts to about fifteen thousand years by our reckoning.) "You see, we die almost at the moment of birth. Our existence is a point, our duration an instant, our globe an atom. We have scarcely begun to learn a little when death arrives, before we have acquired experience. For my part, I dare make no plans. I feel like a drop of water in an immense ocean. I am ashamed, especially before you, of the ridiculous figure I cut in this world."

Micromegas answered, "Were you not a philosopher, I would fear to distress you by telling you that our lives are seven hundred times longer than yours. But you know very well that when we must return our bodies to the elements and enliven nature in another form—what is called dying—when that moment of metamorphosis has come, to have lived an eternity or a day is precisely the same thing. I have visited countries where people live a thousand times longer than we do at home, and found them grumbling still. But everywhere there are sensible people who know how to accept their lot and thank the Author of nature. He has lavished varieties upon this universe with a kind of admirable uniformity. All thinking beings, for example, differ, yet fundamentally all resemble one another in the gift of thought and desire. Matter everywhere has extension, but on each globe it has different properties. How many of these different properties do you count in your matter?" "If you mean," said the Saturnian, "those properties without which we believe this globe could not subsist as it is, we count three hundred: extension, impenetrability, mobility, gravitation, divisibility, and the rest." "Apparently," replied the traveler, "that small number suffices for the Creator's designs upon your little dwelling. I admire his wisdom in everything; everywhere I see differences, but everywhere proportions too. Your

globe is small; so are its inhabitants. You have few sensations; your matter has few properties. All this is the work of Providence. What color is your sun when closely examined?" "A very yellowish white," said the Saturnian, "and when we split one of its rays, we find it contains seven colors." "Our sun tends toward red," said the Sirian, "and we have thirty-nine primary colors. Of all the suns I have approached, no two are alike, just as among you no face is without its difference from every other."

After several questions of this kind, he asked how many essentially different substances were counted on Saturn. He learned that they counted only some thirty: God, space, matter, extended beings that feel, extended beings that feel and think, thinking beings without extension, beings that penetrate one another, beings that do not, and the rest. The Sirian, whose country counted three hundred and who had discovered three thousand more on his travels, astonished the philosopher of Saturn prodigiously. At last, after sharing a little of what they knew and a great deal of what they did not, after reasoning for one revolution of the sun, they resolved to make a little philosophical journey together.

Chapter III



Journey of the two inhabitants of Sirius and Saturn.

Our two philosophers were ready to embark upon Saturn's atmosphere with a very handsome supply of mathematical instruments when the Saturnian's mistress, hearing of it, arrived in tears to remonstrate with him. She was a pretty little brunette, only six hundred and sixty fathoms tall, but her many charms made up for her shortness. "Oh, cruel man!" she cried. "After resisting you for fifteen hundred years, just as I was finally beginning to yield, when I have scarcely spent a hundred years in your arms, you leave me to go traveling with a giant from another world! Go, you are nothing but a seeker of curiosities; you have never loved. If you were a true Saturnian, you would be faithful. Where are you rushing off to? What do you want? Our five moons wander less than you; our ring is less changeable. It is settled: I shall never love anyone again." The philosopher embraced her and wept with her, philosopher though he was; and the lady, after fainting away, went to console herself with a local dandy.

Meanwhile our two curious travelers departed. First they leaped onto the ring, which they found quite flat, as an illustrious inhabitant of our little globe had very shrewdly surmised; from there they passed easily from moon to moon. A comet was passing close to the last one; they sprang onto it with their servants and instruments. After traveling some hundred and fifty million leagues,

they encountered Jupiter's satellites. They crossed into Jupiter itself and stayed a year, during which they learned some splendid secrets that would now be in the press but for the gentlemen of the Inquisition, who found certain propositions a little hard to stomach. But I have read the manuscript in the library of the illustrious archbishop of —, who let me see his books with a generosity and kindness beyond all praise. Accordingly I promise him a long article in the next edition of Moréri, and above all I shall not forget his children, who give such great hope of perpetuating their illustrious father's line.

But let us return to our travelers. On leaving Jupiter they crossed a space of about a hundred million leagues and skirted the planet Mars, which, as everyone knows, is five times smaller than our little globe. They saw two moons attending that planet which have escaped our astronomers' eyes. I know perfectly well that Father Castel will write, and quite amusingly too, against the existence of these two moons; but I defer to those who reason by analogy. Those good philosophers know how difficult it would be for Mars, so far from the sun, to manage with fewer than two moons. Be that as it may, our travelers found it all so small that they feared there would be nowhere to sleep, and went on their way like two travelers who scorn a bad village inn and press on to the next town. But the Sirian and his companion soon regretted it. They traveled a long time and found nothing. At last they saw a little gleam: it was Earth, a pitiful sight to people coming from Jupiter. Nevertheless, afraid of regretting their decision a second time, they resolved to land. They moved onto the comet's tail and, finding an aurora borealis ready to hand, stepped into it and reached Earth on the northern shore of the Baltic Sea, on July fifth, seventeen hundred and thirty-seven, New Style.

Chapter IV



What happens to them on the globe of Earth.

After resting a while, they ate two mountains for breakfast, which their people prepared quite neatly. Then they set out to explore the little country where they had landed. First they went from north to south. The ordinary strides of the Sirian and his people measured about thirty thousand royal feet; the dwarf of Saturn, who stood only a thousand fathoms tall, followed far behind, panting. He had to take some twelve steps for every stride of the other. Imagine, if such comparisons may be permitted, a very small muff dog following a captain of the King of Prussia's guards.

As these foreigners move fairly quickly, they had circled the globe in thirty-six hours. The sun, it is true—or rather Earth—makes a similar journey in a day; but we must remember that one travels much more comfortably by turning on one's axis than by walking on one's feet. Here they were, then, back where they had started, having seen that pool, almost imperceptible to them, called *the Mediterranean*, and that other little pond which surrounds the mole-hill under the name of *the great Ocean*. The dwarf had never been in deeper than mid-leg, and the other had scarcely wet his heel. Going and returning, above and below, they did all they could to discover whether this globe was inhabited. They stooped, lay down, felt everywhere; but their eyes and hands

were not proportioned to the little beings crawling here, and they received not the slightest sensation to suggest that we and our fellow inhabitants of this globe have the honor of existing.

The dwarf, who sometimes judged a little too quickly, decided at once that there was no one on Earth. His first reason was that he had seen no one. Micromegas politely made him see that this was rather bad reasoning. "For," he said, "with your little eyes you cannot see certain stars of the fiftieth magnitude which I distinguish very clearly. Do you conclude that those stars do not exist?" "But," said the dwarf, "I felt about thoroughly." "But," replied the other, "you felt badly." "But," said the dwarf, "this globe is so badly constructed, so irregular, with a shape that strikes me as so ridiculous! Everything here seems in chaos. Do you see those little streams, not one of which runs straight; those ponds which are neither round nor square nor oval nor any regular shape; all those little pointed grains bristling over this globe that have scraped my feet?" (He meant the mountains.) "Do you notice, too, the shape of the whole globe: how flat it is at the poles, how awkwardly it turns about the sun, so that the polar regions must necessarily be barren? Really, what makes me think there is no one here is that sensible people, it seems to me, would not wish to live here." "Well," said Micromegas, "perhaps its inhabitants are not sensible people either. Still, there is some likelihood that this was not made for nothing. Everything here seems irregular to you, you say, because everything on Saturn and Jupiter is laid out by the measuring line. Well, perhaps that is precisely why there is a little confusion here. Have I not told you that on my travels I have always noticed variety?" The Saturnian answered all these arguments. The dispute would never have ended if, fortunately, Micromegas, growing heated as he spoke, had not broken the thread of his diamond necklace. The diamonds fell: pretty little gems of rather unequal size, the largest weighing four hundred pounds and the smallest fifty. The dwarf picked up a few and, bringing them close to his eyes, noticed that their cut made them excellent microscopes. He therefore took a little microscope a hundred and sixty feet in diameter and held it to his pupil; Micromegas chose one of two thousand five hundred feet. They were excellent; but at first nothing could be seen through them: adjustments

were needed. At last the inhabitant of Saturn saw something imperceptible moving below the surface of the Baltic Sea: a whale. He picked it up very deftly with his little finger and, setting it on his thumbnail, showed it to the Sirian, who laughed for the second time at the extreme smallness of our globe's inhabitants. The Saturnian, convinced that our world was inhabited, promptly imagined it contained nothing but whales; and being a great reasoner, he tried to divine where so small an atom derived its origin and motion, whether it had ideas, a will, and freedom. Micromegas was much perplexed. He examined the animal very patiently, and the outcome of his examination was that there was no way to believe a soul lodged there. The two travelers were therefore inclined to think that there was no mind in our dwelling when, with the microscope's aid, they noticed something as large as a whale floating on the Baltic Sea. It is known that at that very time a flock of philosophers was returning from the polar circle, where they had gone to make observations no one had thought of before. The newspapers said their ship ran aground on the coast of Bothnia, and that they escaped with great difficulty. But in this world one never knows what goes on behind the scenes. I shall relate candidly how it happened, adding nothing of my own—which is no small effort for a historian.

Chapter V



Experiments and reasoning of the two travelers.

Micromegas very gently stretched his hand toward the spot where the object appeared. Extending two fingers, withdrawing them for fear of a mistake, then opening and closing them, he very deftly caught the ship carrying these gentlemen and set it too on his nail, without pressing too hard for fear of crushing it. “Here is an animal quite different from the first,” said the dwarf of Saturn. The Sirian placed the supposed animal in the hollow of his hand. The passengers and crew, who had thought themselves swept up by a hurricane and now believed they were on a sort of rock, all began to move. The sailors took barrels of wine, threw them onto Micromegas’s hand, and jumped after them. The geometers took their quadrants, their sectors, and two Lapland girls, and descended onto the Sirian’s fingers. They made such a commotion that at last he felt something moving and tickling his fingers: it was an iron-tipped staff being driven a foot into his forefinger. From this pricking he judged that something had come out of the little animal he held, but at first suspected nothing more. The microscope, which barely allowed him to distinguish a whale and a ship, could not reach beings as imperceptible as men. I mean to wound no one’s vanity here, but I am obliged to ask the self-important to make one small observation with me: taking men’s height at about five feet, we cut no greater figure on Earth than an animal about a six-hundred-thousandth of an inch tall would on a ball ten feet around. Imagine a substance capable of holding Earth

in its hand, with organs proportioned to ours—and there may very well be a great many such substances. Now consider, please, what they would think of those battles which win the victor a village only to lose it again.

I have no doubt that, should some captain of towering grenadiers ever read this work, he will raise his soldiers' caps by at least two full feet. But I warn him that, try as he may, he and his men will never be anything but infinitesimals.

What marvelous skill, then, our philosopher of Sirius must have needed to perceive the atoms I have just described! When Leeuwenhoek and Hartsoeker first saw, or thought they saw, the seed from which we are formed, theirs was nothing like so astonishing a discovery. What delight Micromegas felt at seeing these little machines move, at examining all their tricks, at following them through all their operations! How he exclaimed! How joyfully he put one of his microscopes into his traveling companion's hands! "I see them!" they both said at once. "Don't you see them carrying loads, bending down, standing up?" As they spoke, their hands trembled with the pleasure of seeing such new objects and the fear of losing them. The Saturnian, passing from excessive doubt to excessive credulity, thought he could see them engaged in propagation. "Ah!" he said. "I have caught nature in the act." But appearances deceived him—as happens only too often, whether one uses a microscope or not.

Chapter VI



What happened to them among men.

Micromegas, a far better observer than his dwarf, clearly saw that the atoms were speaking to one another and pointed it out to his companion. Ashamed of his mistake over the matter of generation, the latter refused to believe that such creatures could communicate ideas. He had the gift of languages just as the Sirian did; he could not hear our atoms speak and assumed they were not speaking. Besides, how could these imperceptible beings possess vocal organs, and what would they have to say? To speak one must think, or nearly so; but if they thought, they would possess the equivalent of a soul, and to attribute the equivalent of a soul to this species seemed absurd to him. “But,” said the Sirian, “a moment ago you thought they were making love. Do you believe one can make love without thinking and uttering a word, or at least without making oneself understood? And do you suppose it is harder to produce an argument than a child? For my part, both seem great mysteries.” “I no longer dare either to believe or deny,” said the dwarf. “I have no opinion left. We must try to examine these insects; we shall reason afterward.” “Very well said,” replied Micromegas. At once he took out a pair of scissors and trimmed his nails. From a clipping of his thumbnail he immediately fashioned a sort of great speaking trumpet, like an enormous funnel, and put its narrow end into his ear. The funnel’s circumference enclosed the ship and its entire crew. The faintest voice entered the circular fibers of the nail, so that, thanks to his ingenuity, the

philosopher from up above could perfectly hear the buzzing of our insects down below. Within a few hours he managed to distinguish words and finally to understand French. The dwarf did the same, though with more difficulty. The travelers' astonishment doubled at every moment. They heard mites talking quite sensibly: this trick of nature seemed inexplicable to them. You may well believe that the Sirian and his dwarf burned with impatience to begin a conversation with the atoms. The dwarf feared that his thunderous voice, and especially Micromegas's, would deafen the mites without being understood. Its force had to be reduced. They put into their mouths a kind of little toothpick, whose finely tapered tip came close to the ship. The Sirian held the dwarf on his knees, and the ship and crew on a nail; he lowered his head and spoke softly. At last, with all these precautions and many others besides, he began his address:

"Invisible insects, whom the Creator's hand has been pleased to bring into being in the abyss of the infinitely small, I thank him for deigning to reveal to me secrets that seemed impenetrable. Perhaps at my court they would not deign to look at you; but I despise no one, and I offer you my protection."

If anyone was ever astonished, it was the people who heard these words. They could not guess where they came from. The ship's chaplain recited the exorcism prayers, the sailors swore, and the philosophers aboard constructed systems; but whatever systems they constructed, they could never guess who was speaking to them. The dwarf of Saturn, whose voice was gentler than Micromegas's, then explained in a few words what kinds of beings they were dealing with. He told them about the journey from Saturn, informed them who Mr. Micromegas was, and, after pitying them for being so small, asked whether they had always been in this wretched state so close to annihilation; what they were doing on a globe that seemed to belong to whales; whether they were happy, whether they reproduced, whether they had a soul; and a hundred other questions of the kind.

One reasoner among them, bolder than the rest and offended at the doubt cast on his soul, observed the speaker through sights mounted on a quadrant, took readings from two stations, and at the third spoke as follows: "So, sir,

because you measure a thousand fathoms from head to foot, you think you are a..." "A thousand fathoms!" cried the dwarf. "Good heavens! How can he know my height? A thousand fathoms! He is not an inch out! What! This atom has measured me! He is a geometer; he knows my dimensions, while I, who can see him only through a microscope, do not yet know his!" "Yes, I have measured you," said the natural philosopher, "and I shall certainly measure your great companion too." The proposal was accepted. His Excellency lay down at full length, for had he remained standing, his head would have been too far above the clouds. Our philosophers planted a great tree in him, in a spot Dr. Swift would name but which I shall take care not to call by its name, out of my great respect for the ladies. Then, by a succession of linked triangles, they concluded that what they saw was indeed a young man a hundred and twenty thousand royal feet tall.

Then Micromegas spoke these words: "I see more clearly than ever that nothing should be judged by its apparent size. O God, who have given intelligence to substances that seem so contemptible, the infinitely small costs you as little as the infinitely great. And if beings smaller than these are possible, they may yet possess minds superior to those of the proud animals I have seen in the heavens, whose foot alone would cover the globe on which I have landed."

One of the philosophers answered that he could safely believe there were indeed intelligent beings much smaller than man. He told him, not all the fables Virgil had related about bees, but what Swammerdam had discovered and what Réaumur had dissected. Finally he taught him that there are animals which stand to bees as bees stand to man, as the Sirian himself stood to those vast animals of which he spoke, and as those great animals stand to other substances beside which they appear no more than atoms. Little by little the conversation became interesting, and Micromegas spoke as follows:

Chapter VII



Conversation with men.

“O intelligent atoms, in whom the Eternal Being has been pleased to display his skill and power, you must surely enjoy the purest joys on your globe. Having so little matter, and seeming all mind, you must spend your lives in love and thought: that is the true life of minds. Nowhere have I seen true happiness, but surely it is here.” At these words all the philosophers shook their heads; and one, franker than the others, honestly confessed that, apart from a small number of inhabitants held in very little esteem, all the rest were a collection of madmen, villains, and unhappy people. “We have more matter than we need,” he said, “to do a great deal of harm, if evil comes from matter, and too much mind, if evil comes from mind. Do you know, for example, that at this very moment a hundred thousand madmen of our species, wearing hats, are killing a hundred thousand other animals wearing turbans, or being massacred by them, and that almost everywhere on Earth this has been the practice since time immemorial?” The Sirian shuddered and asked what could be the cause of these horrible quarrels among such puny animals. “It concerns,” said the philosopher, “some heap of mud the size of your heel. Not that any of those millions of men who have themselves slaughtered lays claim to a straw on that heap of mud. The sole question is whether it shall belong to a certain man called *Sultan* or another called, I do not know why, *Caesar*. Neither has ever

seen or will ever see the little patch of ground in question; and scarcely one of these animals slaughtering one another has ever seen the animal for whose sake he is slaughtered.”

“Oh, wretches!” cried the Sirian indignantly. “Can one conceive of such excesses of frantic rage? I feel like taking three steps and crushing this whole anthill of ridiculous murderers with three kicks.” “Do not trouble yourself,” he was answered. “They do quite enough to ruin themselves. You should know that at the end of ten years not a hundredth of these wretches ever remains; you should know that even if they had never drawn a sword, hunger, exhaustion, or excess carry off nearly all of them. Besides, it is not they who should be punished, but those sedentary barbarians who, from the depths of their studies, order the massacre of a million men while digesting their dinner, then have solemn thanks offered to God for it.” The traveler felt pity stir in him for the little human race, in which he was discovering such astonishing contrasts. “Since you are among the few wise men,” he said to these gentlemen, “and apparently kill no one for money, tell me, please, how you occupy yourselves.” “We dissect flies,” said the philosopher. “We measure lines and put numbers together. We agree on two or three points we understand and dispute two or three thousand we do not.” The Sirian and the Saturnian at once took it into their heads to question these thinking atoms and learn what things they agreed on. “What distance do you reckon,” asked the latter, “from the Dog Star to the great star of the Twins?” They all answered at once, “Thirty-two and a half degrees.” “What distance do you reckon from here to the moon?” “Sixty of Earth’s semi-diameters, in round numbers.” “How much does your air weigh?” He thought he would catch them out, but all told him that air weighs about nine hundred times less than an equal volume of the lightest water and nineteen thousand times less than ducat gold. The little dwarf of Saturn, astonished at their answers, was tempted to take for sorcerers the very people to whom he had denied a soul a quarter of an hour before.

At last Micromegas said, “Since you know so well what lies outside you, you surely know even better what is within. Tell me what your soul is and how you form your ideas.” The philosophers all spoke at once, as before, but all held dif-

ferent opinions. The oldest cited Aristotle; another pronounced the name of Descartes; this one, Malebranche; that one, Leibniz; another, Locke. An old Peripatetic declared loudly and confidently, "The soul is an entelechy, and a reason by which it has the power to be what it is. Aristotle expressly states this on page 633 of the Louvre edition." He quoted the passage. "I do not understand Greek very well," said the giant. "Neither do I," said the philosophical mite. "Why, then," the Sirian resumed, "do you quote a certain Aristotle in Greek?" "Because," replied the scholar, "one must surely quote what one does not understand at all in the language one understands least."

The Cartesian spoke up. "The soul is a pure spirit which received all its metaphysical ideas in its mother's womb, and which, on emerging, is obliged to go to school and learn all over again what it knew so well and will no longer know." "Then it was hardly worth the trouble," replied the animal eight leagues tall, "for your soul to be so learned in your mother's womb, only to be so ignorant when you have a beard on your chin. But what do you mean by spirit?" "What a question!" said the reasoner. "I have no idea of it. They say it is not matter." "But do you at least know what matter is?" "Perfectly well," the man answered. "This stone, for example, is gray, has a certain shape and its three dimensions; it is heavy and divisible." "Well," said the Sirian, "this thing that seems to you divisible, heavy, and gray—can you tell me what it is? You see some attributes; but do you know the thing itself at bottom?" "No," said the other. "Then you do not know what matter is."

Mr. Micromegas then turned to another sage whom he held on his thumb and asked him what his soul was and what it did. "Nothing at all," said the follower of Malebranche. "God does everything for me. I see everything in him; I do everything in him. He does everything without my interfering." "One might as well not exist," replied the sage of Sirius. "And you, my friend," he said to a follower of Leibniz standing there, "what is your soul?" "It is," the Leibnizian replied, "a hand pointing to the hours while my body chimes; or, if you prefer, it chimes while my body tells the time; or else my soul is the mirror of the universe, and my body the mirror's frame. All this is clear."

A little partisan of Locke stood close by, and when he was at last addressed, he said, “I do not know how I think, but I know I have never thought except in response to my senses. That there are immaterial and intelligent substances I do not doubt; but that it is impossible for God to impart thought to matter I doubt very much. I revere the eternal power; it is not for me to limit it. I affirm nothing; I am content to believe that more things are possible than people think.”

The animal from Sirius smiled: he did not find this one the least wise. The dwarf of Saturn would have embraced the follower of Locke but for the extreme disparity in their size. Unfortunately, however, a little animalcule in a square cap was there, who interrupted all the other philosophical animalcules. He said that he knew the whole secret, that it was all to be found in the *Summa of Saint Thomas*. He looked the two celestial inhabitants up and down and assured them that their persons, their worlds, their suns, their stars—everything—had been made solely for man. At this speech our two travelers fell against one another, choking with that inextinguishable laughter which, according to Homer, is the privilege of the gods. Their shoulders and bellies heaved back and forth, and in these convulsions the ship on the Sirian’s nail fell into a pocket of the Saturnian’s breeches. The two good souls searched a long time; at last they found the crew again and set everything neatly to rights. The Sirian took up the little mites once more and spoke to them with great kindness, though in his heart he was a little vexed to see the infinitely small possessed of almost infinitely great pride. He promised to make them a fine book of philosophy, written very small for their use, in which they would see the ultimate truth of things. And indeed he gave them this volume before his departure. It was taken to Paris, to the Academy of Sciences; but when the old secretary opened it, he saw only a book of blank pages. “Ah!” he said. “I rather suspected as much.”