

LEIBNIZ, from LETTERS to CLARKE

should originally have taken care to have his subjects so well raised, and should, by his care in providing for their subsistence, preserve them so well in their fitness for their several stations and in their good affection toward him, as that he should have no occasion ever to be amending anything among them, would be only a nominal king.

12. To conclude. If God is obliged to mend the course of nature from time to time, it must either be done supernaturally or naturally. If it is done supernaturally, we must have recourse to miracles in order to explain natural things, which is reducing a hypothesis *ad absurdum*, for everything may easily be accounted for by miracles. But if it is done naturally, then God will not be *intelligentia supramundana*; he will be comprehended under the nature of things; that is, he will be the soul of the world.

III. Leibniz's Third Paper

1. According to the usual way of speaking, *mathematical principles* concern only pure mathematics, namely, numbers, figures, arithmetic, geometry. But *metaphysical principles* concern more general notions, such as cause and effect.

2. The author grants me this important principle, that nothing happens without a sufficient reason why it should be so rather than otherwise. But he grants it only in words and in reality denies it. This shows that he does not fully perceive the strength of it. And therefore, he makes use of an instance, which exactly falls in with one of my demonstrations against real absolute space, the idol of some modern Englishmen. I call it an idol, not in a theological sense, but in a philosophical one, as Chancellor Bacon says that there are idols of the tribe and idols of the cave.⁴

3. These gentlemen maintain, therefore, that space is a real absolute being. But this involves them in great difficulties, for it appears that such a being must be eternal and infinite. Hence some have believed it to be God himself, or one of his attributes, his immen-

sity. But since space consists of parts, it is not a thing which can belong to God.

4. As for my own opinion, I have said more than once that I hold space to be something merely relative, as time is, that I hold it to be an order of coexistences, as time is an order of successions. For space denotes, in terms of possibility, an order of things which exist at the same time, considered as existing together, without entering into their particular manners of existing. And when many things are seen together, one perceives this order of things among themselves.

5. I have many demonstrations to confute the fancy of those who take space to be a substance, or, at least, an absolute being. But I shall only use, at present, one demonstration, which the author here gives me occasion to insist upon. I say, then, that if space were an absolute being, something would happen for which it would be impossible that there should be a sufficient reason—which is against my axiom. And I can prove it thus. Space is something absolutely uniform, and without the things placed in it, one point of space absolutely does not differ in anything from another point of space. Now, from hence it follows (supposing space to be something in itself, besides the order of bodies among themselves) that it is impossible there should be a reason why God, preserving the same situations of bodies among themselves, should have placed them in space after one certain particular manner and not otherwise—why everything was not placed the quite contrary way, for instance, by changing east into west. But if space is nothing else but this order or relation, and is nothing at all without bodies but the possibility of placing them, then those two states, the one such as it is now, the other supposed to be the quite contrary way, would not at all differ from one another. Their difference therefore is only to be found in our chimerical supposition of the reality of space in itself. But in truth, the one would exactly be the same thing as the other, they being absolutely indiscernible, and consequently there is no room to inquire after a reason for the preference of the one to the other.

6. The case is the same with respect to time. Supposing anyone should ask why God did not create

4. See Bacon, *New Organon*, Book I, aphorisms 38–42.

everything a year sooner, and the same person should infer from this that God has done something concerning which it is not possible that there should be a reason why he did it so and not otherwise; the answer is that his inference would be right if time was anything distinct from things existing in time. For it would be impossible that there should be any reason why things should be applied to such particular instants rather than to others, their succession continuing the same. But then the same argument proves that instants, considered without the things, are nothing at all and that they consist only in the successive order of things; this order remaining the same, one of the two states, namely, that of a supposed anticipation, would not at all differ, nor could be discerned from the other which now is.

7. It appears from what I have said that my axiom has not been well understood and that the author denies it, though he seems to grant it. It is true, says he, that there is nothing without a sufficient reason why it is, and why it is thus rather than otherwise, but he adds that this sufficient reason is often the simple or mere will of God—as when it is asked why matter was not placed otherwise in space, the same situations of bodies among themselves being preserved. But this is plainly to maintain that God wills something without any sufficient reason for his will, against the axiom or the general rule of whatever happens. This is falling back into the loose indifference which I have amply refuted and showed to be absolutely chimerical, even in creatures, and contrary to the wisdom of God, as if he could operate without acting by reason.

8. The author objects against me that, if we don't admit this simple and mere will, we take away from God the power of choosing and bring in a fatality. But quite the contrary is true. I maintain that God has the power of choosing, since I ground that power upon the reason of a choice agreeable to his wisdom. And it is not this fatality (which is only the wisest order of providence) but a blind fatality or necessity void of all wisdom and choice which we ought to avoid.

9. I had observed that by lessening the quantity of matter, the quantity of objects upon which God may

exercise his goodness will be lessened. The author answers that instead of matter there are other things in the void on which God exercises his goodness. Be it so, though I don't grant it, for I hold that every created substance is attended with matter. However, let it be so. I answer that more matter was consistent with those same things, and consequently the said objects will still be lessened. The instance of a greater number of men or animals is not to the purpose, for they would fill up place in exclusion of other things.

10. It will be difficult to make me believe that sensorium does not, in its usual meaning, signify an organ of sensation. See the words of Rudolphus Goclenius in his *Dictionarium philosophicum* under *sensiterium*. "Barbarum Scholasticorum," says he, "qui interdum sunt simae Graecorum. Hi dicunt *aitheterion*. Ex quo illi fecerunt *sensiterium* pro sensorio, id est, organo sensationis."⁵

11. The mere presence of a substance, even an animated one, is not sufficient for perception. A blind man, and even someone distracted, does not see. The author must explain how the soul perceives what is outside itself.

12. God is not present to things by situation but by essence; his presence is manifest by his immediate operation. The presence of the soul is quite of another nature. To say that it is diffused all over the body is to make it extended and divisible. To say it is, the whole of it, in every part of the body is to make it divisible of itself. To fix it to a point, to diffuse it all over many points, are only abusive expressions, idols of the tribe.⁶

13. If active force should diminish in the universe by the natural laws which God has established, so that there should be need for him to give a new impression in order to restore that force, like an arti-

5. Rudolph Goclenius, *Lexicon Philosophicum* (Frankfurt, 1613). Goclenius was a standard reference work for seventeenth-century school philosophers, an alphabetical compendium of standard definitions and distinctions. The passage translates: "[*Sensiterium* is] a barbarism due to the scholastics, who sometimes aped the Greeks. The Greeks said '*aitheterion*,' from which the scholastics made up '*sensiterium*', in place of '*sensorium*', that is, the organ of sensation."

6. See Bacon, *New Organon*, Book I, aphorism 41.

san's mending the imperfections of his machine, the disorder would not only be with respect to us but also with respect to God himself. He might have prevented it and taken better measures to avoid such an inconvenience, and therefore, indeed, he has actually done it.

14. When I said that God has provided remedies beforehand against such disorders, I did not say that God suffers disorders to happen and then finds remedies for them, but that he has found a way beforehand to prevent any disorders happening.

15. The author strives in vain to criticize my expression that God is *intelligentia supramundana*. To say that God is above the world is not denying that he is in the world.

16. I never gave any occasion to doubt but that God's conservation is an actual preservation and continuation of the beings, powers, orders, dispositions, and motions [of all things], and I think I have perhaps explained it better than many others. But, says the author, this is all I contended for. To this I answer: [I am] your humble servant for that, Sir. Our dispute consists in many other things. The question is whether God does not act in the most regular and most perfect manner; whether his machine is liable to disorder, which he is obliged to mend by extraordinary means; whether the will of God can act without reason; whether space is an absolute being; also concerning the nature of miracles; and many such things, which make a wide difference between us.

17. Theologians will not grant the author's position against me, namely, that there is no difference, with respect to God, between natural and supernatural; and it will be still less approved by most philosophers. There is an infinite difference between these two things, but it plainly appears that it has not been duly considered. The supernatural exceeds all the powers of creatures. I shall give an instance which I have often made use of with good success. If God wanted to cause a body to move free in the aether round about a certain fixed center, without any other creature acting upon it, I say it could not be done without a miracle, since it cannot be explained by the nature of bodies. For a free body naturally recedes from a curve in the tangent. And therefore, I maintain that the attraction of bodies, properly so called, is a miracu-

lous thing, since it cannot be explained by the nature of bodies.

IV. Leibniz's Fourth Letter

1. In absolutely indifferent things there is [no foundation for] choice,⁷ and consequently no election or will, since choice must be founded on some reason or principle.

2. A mere will without any motive is a fiction, not only contrary to God's perfection, but also chimerical and contradictory, inconsistent with the definition of the will, and sufficiently confuted in my *Theodicy*.

3. It is an indifferent thing to place three bodies, equal and perfectly alike, in any order whatsoever, and consequently they will never be placed in any order by him who does nothing without wisdom. But then, he being the author of things, no such things will be produced by him at all, and consequently, there are no such things in nature.

4. There is no such thing as two individuals indiscernible from each other. An ingenious gentleman of my acquaintance, discoursing with me in the presence of Her Electoral Highness, the Princess Sophia, in the garden of Herrenhausen, thought he could find two leaves perfectly alike. The princess defied him to do it, and he ran all over the garden a long time to look for some; but it was to no purpose. Two drops of water or milk, viewed with a microscope, will appear distinguishable from each other. This is an argument against atoms, which are confuted, as well as the void, by the principles of true metaphysics.

5. Those great principles of sufficient reason and of the identity of indiscernibles change the state of metaphysics. That science becomes real and demonstrative by means of these principles, whereas before it did generally consist in empty words.

6. To suppose two things indiscernible is to suppose the same thing under two names. And therefore, the hypothesis that the universe could have had at first another position of time and place than that which it actually had, and yet that all the parts of the universe

7. The bracketed remark is Clarke's addition.

should have had the same situation among themselves as that which they actually had—such a supposition, I say, is an impossible fiction.

7. The same reason which shows that extramundane space is imaginary proves that all empty space is an imaginary thing, for they differ only as greater and less.

8. If space is a property or attribute, it must be the property of some substance. But of what substance will that bounded empty space be an affection or property, which the persons I am arguing with suppose to be between two bodies?

9. If infinite space is immensity, finite space will be the opposite to immensity; that is, it will be mensurability, or limited extension. Now extension must be the affection of something extended. But if that space is empty, it will be an attribute without a subject, an extension without anything extended. Wherefore, by making space a property, the author falls in with my opinion, which makes it an order of things and not anything absolute.

10. If space is an absolute reality, far from being a property or an accident opposed to substance, it will have a greater reality than substances themselves. God cannot destroy it, nor even change it in any respect. It will be not only immense in the whole but also immutable and eternal in every part. There will be an infinite number of eternal things besides God.

11. To say that infinite space has no parts is to say that it is not composed of finite spaces, and that infinite space might subsist though all finite space should be reduced to nothing. It would be as if one should say, in accordance with the Cartesian supposition of a material extended unlimited world, that such a world might subsist, though all the bodies of which it consists should be reduced to nothing.

12. The author attributes parts to space, on page 19 of the third edition of his *Defense of the Argument against Mr. Dodwell*, and makes them inseparable one from another. But on page 30 of his *Second Defense* he says they are parts improperly so called—which may be understood in a good sense.

13. To say that God can cause the whole universe to move forward in a right line or in any other line,

without otherwise making any alteration in it, is another chimerical supposition. For two states indiscernible from each other are the same state, and consequently, it is a change without any change. Besides, there is neither rhyme nor reason in it. But God does nothing without reason, and it is impossible that there should be any here. Besides, it would be *agendo nihil agere*, as I have just now said, because of the indiscernibility.

14. These are idols of the tribe, mere chimeras, and superficial imaginations. All this is only grounded upon the supposition that imaginary space is real.⁸

15. It is a like fiction (that is) an impossible one, to suppose that God might have created the world some millions of years sooner. They who run into such kind of fictions can give no answer to those who would argue for the eternity of the world. For since God does nothing without reason, and no reason can be given why he did not create the world sooner, it will follow either that he has created nothing at all, or that he created the world before any assignable time, which is to say that the world is eternal. But when once it has been shown that the beginning, whenever it was, is always the same thing, the question why it was not otherwise becomes needless and insignificant.

16. If space and time were anything absolute, that is, if they were anything else besides certain orders of things, then indeed my assertion would be a contradiction. But since it is not so, the hypothesis [that space and time are anything absolute]⁹ is contradictory; that is, it is an impossible fiction.

17. And the case is the same as in geometry, where by the very supposition that a figure is greater than it really is, we sometimes prove that it is not greater. This indeed is a contradiction, but it lies in the hypothesis, which appears to be false for that very reason.

18. Space being uniform, there can neither be any external nor internal reason by which to distinguish its parts and to make any choice among them. For any external reason to discern between them can only be grounded upon some internal one. Otherwise we

8. See Bacon, *New Organon*, Book I, aphorism 41.

9. The bracketed remark is Clarke's addition.

should discern what is indiscernible or choose without discerning. A will without reason would be the chance of the Epicureans. A God who should act by such a will would be a God only in name. The cause of these errors proceeds from want of care to avoid what derogates from the divine perfections.

19. When two incompatible things are equally good, and neither in themselves, nor by their combination with other things, has the one any advantage over the other, God will produce neither of them.

20. God is never determined by external things but always by what is in himself, that is, by his knowledge, before anything exists outside himself.

21. There is no possible reason that can limit the quantity of matter, and therefore, such limitation can have no place.

22. And supposing this arbitrary limitation of the quantity of matter, something might always be added to it without derogating from the perfection of the things which do already exist, and consequently, something must always be added, in order to act according to the principle of the perfection of the divine operations.

23. And therefore, it cannot be said that the present quantity of matter is the fittest for the present constitution of things. And even supposing it is, it would follow that this present constitution of things would not be the fittest absolutely, if it hinders God from using more matter. It is therefore better to choose another constitution of things, capable of something more.

24. I should be glad to see a passage of any philosopher who takes *sensorium* in any other sense than Goclenius does.

25. If Scapula says that *sensorium* is the place in which the understanding resides, he means by it the organ of internal sensation. And therefore, he does not differ from Goclenius.¹⁰

26. *Sensorium* has always signified the organ of sensation. The pineal gland would be, according to Descartes, the *sensorium* in the above-mentioned sense of Scapula.

27. There is hardly any less appropriate expression

10. Johann Scapula, *Lexicon Graeco-Latinum* (Basel, 1580). Clarke had attempted to counter Goclenius with Scapula.

on this subject than that which makes God have a *sensorium*. It seems to make God the soul of the world. And it will be a hard matter to put a justifiable sense upon this word, according to the use Sir Isaac Newton makes of it.

28. Though the question is about the sense put upon that word by Sir Isaac Newton, and not by Goclenius, yet I am not to blame for quoting the *Philosophical Dictionary* of that author, because the design of dictionaries is to show the use of words.

29. God perceives things in himself. Space is the place of things and not the place of God's ideas, unless we look upon space as something that makes the union between God and things in imitation of the imagined union between the soul and the body, which would still make God the soul of the world.

30. And indeed, the author is much in the wrong when he compares God's knowledge and operation with the knowledge and operation of souls. The soul knows things because God has put into it a principle representative of things without. But God knows things because he continually produces them.

31. The soul does not act upon things, according to my opinion, any otherwise than because the body adapts itself to the desires of the soul, by virtue of the harmony which God has pre-established between them.

32. But they who fancy that the soul can give a new force to the body, and that God does the same in the world to mend the imperfections of his machine, make God too much like the soul by ascribing too much to the soul and too little to God.

33. For none but God can give a new force to nature, and he does it only supernaturally. If there was need for him to do it in the natural course of things, he would have made a very imperfect work. At that rate, he would be, with respect to the world, what the soul, in the vulgar notion, is with respect to the body.

34. Those who undertake to defend the vulgar opinion concerning the soul's influence over the body by instancing God's operating on things external, still make God too much like the soul of the world. The author's affecting to find fault with the words *intelligentia supramundana* seems also to incline that way.

35. The images with which the soul is immediately

affected are within itself, but they correspond to those of the body. The presence of the soul is imperfect and can only be explained by that correspondence. But the presence of God is perfect and manifested by his operation.

36. The author wrongly supposes against me that the presence of the soul is connected with its influence over the body, for he knows I reject that influence.

37. The soul's being diffused through the brain is no less inexplicable than its being diffused through the whole body. The difference is only in more and less.

38. They who fancy that active forces decrease of themselves in the world do not well understand the principal laws of nature and the beauty of the works of God.

39. How will they be able to prove that this defect is a consequence of the dependence of things?

40. The imperfection of our machines, which is the reason why they need to be mended, proceeds from this very thing, that they do not sufficiently depend upon the workman. And therefore, the dependence of nature upon God, far from being the cause of such an imperfection, is rather the reason why there is no such imperfection in nature, because nature is so dependent upon an artist too perfect to make a work that needs to be mended. It is true that every particular machine of nature is in some measure liable to be disordered, but not the entire universe, which cannot diminish in perfection.

41. The author contends that space does not depend upon the situation of bodies. I answer: It is true, it does not depend upon such or such a situation of bodies, but it is that order which renders bodies capable of being situated, and by which they have a situation among themselves when they exist together, as time is that order with respect to their successive position. But if there were no creatures, space and time would only be in the ideas of God.

42. The author seems to acknowledge here that his notion of a miracle is not the same as that which theologians and philosophers usually have. It is therefore sufficient for my purpose that my adversaries are obliged to have recourse to what is commonly called a miracle, which one attempts to avoid in philosophy.

43. I am afraid the author, by altering the sense commonly put upon the word "miracle," will fall into an inconvenient opinion. The nature of a miracle does not at all consist in usualness or unusualness, for then monsters would be miracles.

44. There are miracles of an inferior sort which an angel can work. He can, for instance, make a man walk upon the water without sinking. But there are miracles which none but God can work, they exceeding all natural powers. Of this kind are creating and annihilating.

45. It is also a supernatural thing that bodies should attract one another at a distance without any intermediate means, and that a body should move around without receding in the tangent, though nothing hinders it from so receding. For these effects cannot be explained by the nature of things.

46. Why should it be impossible to explain the motion of animals by natural forces? Though, indeed, the beginning of animals is no less inexplicable by natural forces than the beginning of the world.

P.S. All those who maintain a vacuum are more influenced by imagination than by reason. When I was a young man, I also gave in to the notion of the void and atoms, but reason brought me into the right way. It was a pleasing imagination. Men carry their inquiries no further than those two things: They (as it were) nail down their thoughts to them; they fancy they have found out the first elements of things, a *non plus ultra*. We would have nature to go no further, and to be finite as our minds are; but this is being ignorant of the greatness and majesty of the author of things. The least corpuscle is actually subdivided *in infinitum* and contains a world of other creatures which would be wanting in the universe if that corpuscle were an atom, that is, a body of one entire piece without subdivision. In like manner, to admit the void in nature is ascribing to God a very imperfect work; it is violating the grand principle of the necessity of a sufficient reason, which many have talked of without understanding its true meaning; as I have lately shown in proving, by that principle, that space is only an order of things, as time also is, and not at all an absolute being. To omit many other arguments against the void and atoms, I shall here mention those which I ground upon God's perfection and upon the

necessity of a sufficient reason. I lay it down as a principle that every perfection which God could impart to things, without derogating from their other perfections, has actually been imparted to them. Now let us fancy a space wholly empty. God could have placed some matter in it without derogating, in any respect, from all other things; therefore, he has actually placed some matter in that space; therefore, there is no space wholly empty; therefore, all is full. The same argument proves that there is no corpuscle but what is subdivided. I shall add another argument grounded upon the necessity of a sufficient reason. It is impossible there should be any principle to determine what proportion of matter there ought to be,

out of all the possible degrees from a plenum to a void, or from a void to a plenum. Perhaps it will be said that the one should be equal to the other, but, because matter is more perfect than the void, reason requires that a geometrical proportion should be observed and that there should be as much more matter than void, as the former deserves to be preferred. But then, there must be no void at all, for the perfection of matter is to that of the void as something to nothing. And the case is the same with atoms: What reason can anyone assign for confining nature in the progression of subdivision? These are fictions, merely arbitrary and unworthy of true philosophy. The reasons alleged for the void are mere sophisms.