

G. W. Leibniz *and* Samuel Clarke



Correspondence

Edited, with Introduction, by

Roger Ariew

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The Correspondence

Leibniz's First Letter, Being an Extract of a Letter Written in November, 1715³

1. Natural religion itself seems to decay [in England] very much. Many will have human souls to be material; others make God himself a corporeal being.

2. Mr. Locke and his followers are uncertain at least whether the soul is not material and naturally perishable.⁴

3. Sir Isaac Newton says that space is an organ which God makes use of to perceive things by. But if God stands in need of any organ to perceive things by, it will follow that they do not depend altogether on him, nor were produced by him.

4. Sir Isaac Newton and his followers also have a very odd opinion concerning the work of God. According to their doctrine, God Almighty needs to wind up his watch from time to time,⁵ otherwise it would cease to move. He did not, it seems, have sufficient foresight to make it a perpetual motion. No, the machine of God's making is so imperfect, according to these gentlemen, that he is obliged to clean it now and then by an extraordinary concourse, and even to mend it, as a clockmaker mends his work; he must consequently be so much the more unskillful a workman as he is more often obliged to mend his work and to set it right. According to my opinion, the same force⁶ and vigor always remains in the world and only passes from one part of matter to another in agreement with the laws of nature and the beautiful pre-established order. And I hold that when God works miracles, he does not do it in order to supply the needs of nature, but those of grace. Whoever thinks otherwise, must necessarily have a very mean notion of the wisdom and power of God.

3. To Caroline, Princess of Wales.

4. See Locke, *Essay Concerning Human Understanding* IV, 3.6 and *First Letter to Stillingfleet*. See also Leibniz's Preface to the *New Essays*, AG 291–306, esp. pp. 300 et seq.

5. According to Clarke, Leibniz is alluding to a passage in Newton's *Optics*, Query 31 ending with: "which will be apt to increase, until this system needs a reformation." See Appendix B, no. 3.

6. Clarke directs the reader to his long footnote about force at the end of the *Fifth Reply*, concerning sec. 93–5. He also refers to Leibniz's writings, Appendix A, no. 2, and to Leibniz's *Fifth Letter*, sec. 87 and 91.

Clarke's First Reply⁷

1. That there are some in England as well as in other countries who deny or very much corrupt even natural religion itself is very true and much to be lamented. But (next to the vicious affections of men) this is to be principally ascribed to the false philosophy of the materialists, to which the mathematical principles of philosophy are the most directly repugnant. That some make the souls of men, and others even God himself, to be a corporeal being is also very true, but those who do so are the great enemies of the mathematical principles of philosophy; these principles, and these alone, prove matter or body to be the smallest and most inconsiderable part of the universe.

2. That Mr. Locke doubted whether the soul was immaterial or not may justly be suspected from some parts of his writings, but in this he has been followed only by some materialists, enemies of the mathematical principles of philosophy, who approve little or nothing in Mr. Locke's writings but his errors.

3. Sir Isaac Newton does not say that space is the organ which God makes use of to perceive things by, nor that he has need of any medium at all by which to perceive things, but on the contrary that he, being omnipresent, perceives all things by his immediate presence to them in all space, wherever they are, without the intervention or assistance of any organ or medium whatsoever. In order to make this more intelligible, he illustrates it by a similitude: that as the mind of man, by its immediate presence to the pictures or images of things formed in the brain by the means of the organs of sensation, sees those pictures as if they were the things themselves, so God sees all things by his immediate presence to them, given that he is actually present to the things themselves, to all things in the universe, as the mind of man is present to all the pictures of things formed in his brain. Sir Isaac Newton considers the brain and organs of sensation as the means by which those pictures are formed, but not as the means by which the mind sees or perceives those pictures when they are so formed. And he does not consider things in the universe as if they were pictures formed by certain means or organs, but as real things formed by God himself and seen by him in all places wherever they are, without the intervention of any medium at all. And this similitude is all that he means when he supposes infinite space to be (as it were) the *sensorium* of the omnipresent Being.⁸

7. November 26, 1715.

8. Clarke refers to the following passage from Newton's *Optics*, Query 28: "Is not the sensorium of animals the place where the sensitive substance is present,

4. The reason why, among men, an artificer is justly esteemed so much the more skillful, as the machine of his composing will continue longer to move regularly without any further interposition of the workman, is because the skill of all human artificers consists only in composing, adjusting, or putting together certain movements, the principles of whose motion are altogether independent of the artificer: such are weights and springs and the like, whose forces are not made but only adjusted by the workman. But with regard to God the case is quite different, because he not only composes or puts things together, but is himself the author and continual preserver of their original forces or moving powers; and consequently it is not a diminution, but the true glory of his workmanship, that nothing is done without his continual government and inspection. The notion of the world's being a great machine, going on without the interposition of God as a clock continues to go without the assistance of a clockmaker, is the notion of materialism and fate, and tends (under pretence of making God a *supramundane intelligence*)⁹ to exclude providence and God's government in reality out of the world. And by the same reason that a philosopher can represent all things going on from the beginning of the creation without any government or interposition of providence, a skeptic will easily argue still farther backwards and suppose that things have from eternity gone on (as they now do) without any true creation or original author at all, but only what such arguers call all-wise and eternal nature. If a king had a kingdom in which all things would continually go on without his government or interposition, or without his attending to and ordering what is done in the kingdom, it would be to him merely a nominal kingdom, nor would he in reality deserve at all the title of king or governor. And as those men who claim that in an earthly government things may go on perfectly well without the king himself ordering or disposing of anything may reasonably be suspected that they would like very well to set the king aside, so whoever contends that the course of the world can go on without the continual direction of God, the Supreme Governor, his doctrine does in effect tend to exclude God out of the world.

and to which the sensible species of things are carried by the nerves and brain, that they may be perceived there, as being present to the sensitive substance? And do not the phenomena of nature show that there is an incorporeal, living, intelligent, omnipresent being who, in the infinite space, which is as it were his sensorium (or place of perception), sees and discerns the very things themselves in the most intimate and thorough manner, and comprehends them as entirely and immediately present within himself—of these things the sensitive and thinking substance that is in us perceives and views, in its little sensorium, nothing but the images carried there by the organs of the senses?"

9. See Appendix A, no. 1.

Leibniz's Second Letter, Being an Answer to Clarke's First Reply¹⁰

1. It is rightly observed in the paper delivered to the Princess of Wales, which Her Royal Highness has been pleased to communicate to me, that next to corruption of manners, the principles of the materialists do very much contribute to keep up impiety. But I believe that one has no reason to add that the mathematical principles of philosophy are opposite to those of the materialists. On the contrary, they are the same, only with this difference—that the materialists, in imitation of Democritus, Epicurus, and Hobbes, confine themselves altogether to mathematical principles and admit only bodies, whereas the Christian mathematicians also admit immaterial substances. For this reason, not mathematical principles (according to the usual sense of that word) but *metaphysical principles* ought to be opposed to those of the materialists. Pythagoras, Plato, and Aristotle in some measure had a knowledge of these principles, but I claim to have established them demonstratively in my *Theodicy*, though I have done it in a popular manner. The great foundation of mathematics is the *principle of contradiction or identity*, that is, that a proposition cannot be true and false at the same time, and that therefore A is A and cannot be not A. This single principle is sufficient to demonstrate every part of arithmetic and geometry, that is, all mathematical principles. But in order to proceed from mathematics to natural philosophy, another principle is required, as I have observed in my *Theodicy*; I mean the *principle of sufficient reason*, namely, that nothing happens without a reason why it should be so rather than otherwise. And therefore Archimedes, being desirous to proceed from mathematics to natural philosophy, in his book *De aequilibrio*, was obliged to make use of a particular case of the great principle of sufficient reason. He takes it for granted that if there is a balance in which everything is alike on both sides,¹¹ and if equal weights are hung on the two ends of that balance, the whole will be at rest. That is because no reason can be given why one side should weigh down rather than the other.¹² Now, by that single principle, namely, that there ought to be a sufficient reason why things should be so and not otherwise, one may demonstrate the being of God and all the other parts of metaphysics or natural theology and even, in some measure, those principles of natural philosophy that are independent of mathematics; I mean the dynamic principles or the principles of force.¹³

10. End of December, 1715.

11. See Appendix A, no. 3.

12. See Archimedes, *On the Equilibrium of Planes*, book I, postulate 1.

13. See Appendix A, no. 2.

2. The author proceeds and says that according to the *mathematical principles*, that is, according to Sir Isaac Newton's philosophy (for *mathematical principles* determine nothing in the present case), matter is the most inconsiderable part of the universe. The reason is because he admits empty space besides matter and because, according to his notions, matter fills up only a very small part of space. But Democritus and Epicurus maintained the same thing; they differed from Sir Isaac Newton only as to the quantity of matter, and perhaps they believed there was more matter in the world than Sir Isaac Newton will allow; in this I think their opinion ought to be preferred, for the more matter there is, the more God has occasion to exercise his wisdom and power. This is one reason, among others, why I maintain that there is no vacuum at all.

3. I find, in express words in the Appendix to Sir Isaac Newton's *Optics*,¹⁴ that space is the *sensorium* of God. But the word *sensorium* has always signified the organ of sensation. He and his friends may now, if they think fit, explain themselves quite otherwise; I shall not be against it.

4. The author supposes that the presence of the soul is sufficient to make it consciously perceive¹⁵ what passes in the brain. But this is the very thing that Father Malebranche and all the Cartesians deny; and they rightly deny it. More is required besides bare presence to enable one thing to represent¹⁶ what passes in another. Some communication that may be explained, some sort of influence [or things in common or common cause]¹⁷ is required for this purpose. Space, according to Sir Isaac Newton, is intimately present to the body contained in it and commensurate with it. Does it follow from this that space consciously perceives what

14. See the footnote to Clarke's *First Reply*, sec. 3.

15. Clark's translation has "perceive" for Leibniz's *appercevoir*. The latter is a technical term in Leibniz's philosophy meaning something like "consciously perceive" (which we have chosen to use)—for example, "Monadology," sec. 14, AG 214–5: "The passing state which involves and represents a multitude in the unity or in the simple substance is nothing other than what one calls *perception*, which should be distinguished from *apperception*, or consciousness, as will be evident in what follows. This is where the Cartesians have failed badly, since they took no account of the perceptions that we do not consciously perceive. This is also what made them believe that minds alone are monads and that there are no animal souls or other entelechies. With the common people, they have confused a long stupor with death, properly speaking, which made them fall again into the Scholastic prejudice of completely separated souls, and they have even confirmed unsound minds in the belief in the mortality of souls."

16. Clark's translation has "perceive" again, though this time it is for Leibniz's *repræsenter*.

17. The bracketed fragment is missing in Clarke's translation.

passes in a body and remembers it when that body is gone away? Besides, the soul being indivisible, its immediate presence, which may be imagined in the body, would only be in one point. How then could it consciously perceive what happens out of that point? I claim to be the first who has shown how the soul consciously perceives what passes in the body.¹⁸

5. The reason why God consciously perceives everything is not his bare presence, but also his operation. It is because he preserves things by an action that continually produces whatever is good and perfect in them. But the soul having no immediate influence over the body,¹⁹ nor the body over the soul, their mutual correspondence cannot be explained by their being present to each other.

6. The true and principal reason why we commend a machine is rather based on the effects of the machine than on its cause. We do not inquire so much about the power of the artist as we do about his skill in his workmanship. And therefore the reason advanced by the author for extolling the machine of God's making, based on his having made it entirely without borrowing any materials from outside—that reason, I say, is not sufficient. It is a mere shift the author has been forced to have recourse to, and the reason why God exceeds any other artisan is not only because he makes the whole, whereas all other artisans must have matter to work on. This excellence in God would be only on the account of power. But God's excellence also arises from another cause, namely, wisdom, by which his machine lasts longer and moves more regularly than those of any other artisan whatsoever. He who buys a watch does not mind whether the workman made every part of it himself, or whether he got the several parts made by others and only put them together—provided the watch goes right. And if the workman had received from God even the gift of creating the matter of the wheels, yet the buyer of the watch would not be satisfied, unless the workman had also received the gift of putting them well together. In like manner, he who will be pleased with God's workmanship cannot be so without some other reason than that which the author has here advanced.

7. Thus the skill of God must not be inferior to that of a workman; no, it must go infinitely beyond it. The bare production of everything would indeed show the *power* of God, but it would not sufficiently show his *wisdom*. They who maintain the contrary will fall exactly into the error of the materialists and of Spinoza, from whom they profess to differ. They would, in such case, acknowledge power but not sufficient wisdom in the principle of all things.

18. See Appendix A, no. 5.

19. See Appendix A, no. 5.

8. I do not say the material world is a machine or watch that goes without God's interposition, and I have sufficiently insisted that the creation needs to be continually influenced by its creator. But I maintain it to be a watch that goes without needing to be mended by him; otherwise we must say that God revises himself. No, God has foreseen everything. He has provided a remedy for everything beforehand. There is in his works a harmony, a beauty, already pre-established.

9. This opinion does not exclude God's providence or his government of the world; on the contrary, it makes it perfect. A true providence of God requires a perfect foresight. But then it requires, moreover, not only that he should have foreseen everything, but also that he should have provided for everything beforehand with proper remedies; otherwise, he must lack either wisdom to foresee things or power to provide for them. He will be like the God of the Socinians who lives only from day to day, as Mr. Jurieu says.²⁰ Indeed, God, according to the Socinians, does not so much as foresee inconveniences, whereas the gentlemen I am arguing with, who oblige him to mend his work, say only that he does not provide against them. But this seems to me to be still a very great imperfection. According to this doctrine, God must lack either power or good will.

10. I do not think I can be rightly blamed for saying that God is *intelligentia supramundana*.²¹ Will they say that he is *intelligentia mundana*, that is, the soul of the world? I hope not. However, they will do well to take care not to fall into that notion unawares.

11. The comparison of a king, under whose reign everything should go on without his interposition, is by no means to the present purpose, since God continually preserves everything and nothing can subsist without him. His kingdom therefore is not a nominal one. It is just as if one should say that a king who should originally have taken care to have his subjects so well educated, 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 be done either supernaturally or naturally. If it is done supernaturally, we must have recourse to miracles in order to explain

20. This probably refers to Pierre Jurieu's *Le tableau du Socinianisme* (The Hague, 1690). The Socinians were a Protestant sect, forerunners of Unitarianism, founded by Laelius and Faustus Socinius. One of the Socinian doctrines was that God's foreknowledge was limited to what was necessary and did not apply to the possible.

21. See Appendix A, no. 1.

natural things,²² 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*,²³ he will be comprehended under the nature of things, that is, he will be the soul of the world.

Clarke's Second Reply²⁴

1. When I said that the mathematical principles of philosophy are opposite to those of the materialists, the meaning was that, whereas materialists suppose the frame of nature to be such as could have arisen from mere mechanical principles of matter and motion, of necessity and fate, the mathematical principles of philosophy show on the contrary that the state of things (the constitution of the sun and planets) is such as could not arise from anything but an intelligent and free cause. As to the propriety of the name: to the extent that metaphysical consequences follow demonstratively from mathematical principles, mathematical principles may (if it is thought fit) be called metaphysical principles.

It is very true that nothing is without a sufficient reason why it is, and why it is thus rather than otherwise. And, therefore, where there is no cause, there can be no effect. But this sufficient reason is often times no other than the mere will of God. There can be no other reason but the mere will of God, for instance, why this particular system of matter should be created in one particular place, and that in another particular place, when (all place being absolutely indifferent to all matter) it would have been exactly the same thing vice versa, supposing the two systems (or the particles) of matter to be alike. And if it could in no case act without a predetermining cause, any more than a balance can move without a preponderating weight,²⁵ this would tend to take away all power of choosing and to introduce fatality.

2. Many ancient Greeks, who had their philosophy from the Phoenicians and whose philosophy was corrupted by Epicurus, held indeed in general matter and vacuum; but they did not know how to apply those principles to the explanation of the phenomena of nature by mathematics. However small the quantity of matter is, God does not at all have the less subject to exercise his wisdom and power on it, for other things, as well as matter, are equally subjects on which God exercises his power and wisdom. By the same argument it might just as well have been proved that

22. See Appendix A, no. 6.

23. See Appendix A, no. 1.

24. January 10, 1716.

25. See Appendix A, no. 4.

men, or any other particular species of beings, must be infinite in number, lest God should lack subjects on which to exercise his power and wisdom.

3. The word *sensory* does not properly signify the organ, but the place of sensation. The eye, the ear, etc., are organs, but not sensoria. Besides, Sir Isaac Newton does not say that space is the sensory, but that it is, by way of similitude only, "as it were the sensory, etc."²⁶

4. It was never supposed that the presence of the soul was sufficient, but only that it is necessary, in order to have perception. Without being present to the images of the things perceived, it could not possibly perceive them, but being present is not sufficient without it being also a living substance. Any inanimate substance, though present, perceives nothing. And a living substance can only perceive where it is present either to the things themselves (as the omnipresent God is to the whole universe) or to the images of things (as the soul of man is in its proper sensory). Nothing can any more act or be acted on where it is not present than it can be where it is not. The soul's being indivisible does not prove it to be present only in a mere point. Space, finite or infinite, is absolutely indivisible, even so much as in thought (to imagine its parts moved from each other is to imagine them moved out of themselves);²⁷ and yet space is not a mere point.

5. God perceives things, not indeed by his simple presence to them, nor yet by his operation on them, but by his being a living and intelligent, as well as an omnipresent substance. The soul likewise (within its narrow sphere), not by its simple presence, but by its being a living substance, perceives the images to which it is present and which, without being present to them, it could not perceive.

6 and 7. It is very true that the excellence of God's workmanship does not consist in its showing the power only, but in its also showing the wisdom of its author. But then this wisdom of God does not appear in making nature (as an artificer makes a clock) capable of going on without him (for that is impossible, there being no powers of nature independent of God as the powers of weights and springs are independent of men), but the wisdom of God consists in framing originally the perfect and complete idea of a work, which began and continues according to that original perfect idea by the continual uninterrupted exercise of his power and government.

8. The word *correction* or *amendment* is to be understood, not with

26. See the footnote in Clarke's *First Reply*, sec. 3.

27. Clarke refers to Newton, *Principia*, scholium to Definition 8: "As the order of the parts of time is immutable, so also is the order of the parts of space. Suppose these parts to be moved out of their places, and they will be moved (if the expression may be allowed) out of themselves." See Appendix B, no. 1.

regard to God, but only to us. The present frame of the solar system, for instance, according to the present laws of motion, will in time fall into confusion²⁸ and, perhaps, after that, will be amended or put into a new form. But this amendment is only relative with regard to our conceptions. In reality, and with regard to God, the present frame, and the consequent disorder, and the following renovation, are all equally parts of the design framed in God's original perfect idea. It is in the frame of the world, as in the frame of man's body; the wisdom of God does not consist in making the present frame of either of them eternal, but to last so long as he thought fit.

9. The wisdom and foresight of God do not consist in originally providing remedies that shall of themselves cure the disorders of nature.²⁹ For in truth and strictness, with regard to God there are no disorders, and consequently no remedies, and indeed no powers of nature at all that can do anything of themselves³⁰ (as weights and springs work of themselves with regard to men); but the wisdom and foresight of God consist (as has been said) in contriving at once what his power and government is continually putting in actual execution.

10. God is neither a *mundane intelligence*, nor a *supramundane intelligence*,³¹ but an omnipresent intelligence, both in and outside the world. He is in all, and through all, as well as above all.

11. If God's conserving all things means his actual operation and government in preserving and continuing the beings, powers, orders, dispositions, and motions of all things, this is all that is contended for. But if his conserving things means no more than a king's creating such subjects as shall be able to act well enough without his intermeddling or ordering anything among them ever after, this is making him indeed a real creator, but only a nominal governor.

12. The argument in this paragraph supposes that whatever God does is supernatural or miraculous, and consequently it tends to exclude all operation of God in the governing and ordering of the natural world. But the truth is, *natural* and *supernatural* are nothing at all different with regard to God, but merely distinctions in our conceptions of things. To cause the sun (or earth) to move regularly is something we call natural. To stop its motion for a day, we call supernatural. But the one is the effect of no greater power than the other; nor is the one with respect to God more

28. See the footnote to Leibniz's *First Letter*, sec. 4.

29. Clarke refers to his "Sermons preached at Mr. Boyle's Lecture," Part I, p. 106 (4th ed.); *Works* (1738; reprint ed. New York: Garland Publishing, 1978), vol. II, p. 566.

30. See Appendix A, no. 2.

31. See Appendix A, no. 1.

or less natural or supernatural than the other. God's being present in or to the world does not make him the soul of the world.³² A soul is part of a compound, of which body is the other part, and they mutually affect each other as parts of the same whole. But God is present to the world, not as a part, but as a governor, acting on all things, himself acted on by nothing. He is not far from every one of us, for in him we (and all things) live and move and have our beings.

Leibniz's Third Letter, Being an Answer to Clarke's Second Reply³³

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 are 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 understand its strength. 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 *idola tribus, idola specus*.³⁴

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 necessarily be eternal and infinite. Hence some have believed it to be God himself, or one of his attributes, his immensity. But since space consists of parts, it is not a thing that can belong to God.

4. As for my own opinion, I have said more than once that I hold space to be something purely 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 that 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 consciously perceives this order of things among themselves.

5. I have many demonstrations to confute the fancy of those who take

32. Clarke quotes here from the paragraph in Newton's General Scholium to the *Principia* that begins: "This Being governs all things . . ."; see Appendix B, no. 2.

33. February 25, 1716.

34. That is, "idols of the tribe and idols of the cave." See Bacon, *New Organon* I, aphorisms 38–42.

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 was an absolute being, something would happen for which it would be impossible that there should be a sufficient reason³⁵—which is against my axiom. And I prove it thus: Space is something absolutely uniform, and without the things placed in it, one point of space absolutely does not differ in any respect whatsoever from another point of space. Now from this 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 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, he says, 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 elsewhere in space, the same situations of bodies

35. See Appendix A, no. 4.

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 shown 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 do not admit this simple and pure 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 on 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 on which God may exercise his goodness will be lessened. The author answers that instead of matter, there are other things in the void space on which God may exercise his goodness. That may be so, though I do not 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 be still 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 simiae Graecorum. Hi dicunt *aitheterion*, ex quo illi fecerunt *Sensiterium* pro Sensorio, id est, Organo Sensationis.”³⁶

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

12. God is not present to things by situation but by essence; his presence is manifested by his immediate operation. The presence of the soul is

36. Rudolph Goclenius, *Lexicon Philosophicum* (Frankfurt, 1613; reprint ed., Hildesheim: Georg Olms, 1980), p. 1024. Goclenius was a standard reference work for seventeenth-century school philosophers, an alphabetical compendium of standard definitions and distinctions. The passage translates as: “[*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.”

of quite 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.³⁷ To fix it to a point, to diffuse it all over many points, are only abusive expressions, *idola tribus*.³⁸

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 artisan'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 allows 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*.³⁹ 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 that I contended for." To this I answer, "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 disorders, 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 in what consists 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 a vast difference between these two things, but it plainly appears that it has not been duly considered. That which is 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 ether around about a certain fixed center, without any other creature acting on it, I say it could not be done without a miracle, since it

37. Clarke had "divided from itself."

38. "Idols of the tribe." See Bacon, *New Organon*, aphorism 41.

39. See Appendix A, no. 1.

cannot be explained by the nature of bodies. For a free body does naturally recede from a curve in the tangent. And therefore I maintain that the attraction of bodies, properly called, is a miraculous thing,⁴⁰ since it cannot be explained by the nature of bodies.

Clarke's Third Reply⁴¹

1. This relates only to the signification of words. The definitions here given may well be allowed, and yet mathematical reasonings may be applied to physical and metaphysical subjects.

2. Undoubtedly nothing is without a sufficient reason why it is rather than not, and why it is thus rather than otherwise. But in things indifferent in their own nature, mere will, without anything external to influence it, is alone that sufficient reason—as in the instance of God's creating or placing any particle of matter in one place rather than in another, when all places are originally alike. And the case is the same, even though space was nothing real but only the mere order of bodies; for still it would be absolutely indifferent, and there could be no other reason but mere will why three equal particles should be placed or ranged in the order a, b, c, rather than in the contrary order. And therefore no argument can be drawn from this indifference of all places to prove that no space is real. For different spaces are really different or distinct one from another, though they are perfectly alike. And there is this evident absurdity in supposing space not to be real but to be merely the order of bodies, that, according to that notion, if the earth and sun and moon had been placed where the most remote fixed stars are now (provided they were placed in the same order and distance they are now with regard one to another) it would not only have been (as this learned author rightly says) *la même chose*, the same thing in effect—which is very true—but it would also follow that they would then have been in the same place too, as they are now—which is an express contradiction.

The ancients did not call all space void of bodies, but only extramundane space, by the name of imaginary space.⁴² The meaning of this is not that such space is not real,⁴³ but only that we are wholly ignorant what

40. See Appendix A, no. 8 and the footnote to Clarke's *Fifth Reply*, no. 113.

41. May 15, 1716.

42. Clarke states: "This was occasioned by a passage in the private letter with which Mr. Leibniz's third paper came enclosed." Previous editors of Leibniz's works did not find any such letter among Leibniz's papers.

43. Clarke adds, "Of nothing there are no dimensions, no magnitudes, no quantity, no properties."

kinds of things are in that space. Those writers who, by the word *imaginary*, meant at any time to affirm that space was not real did not thereby prove that it was not real.

3. Space is not a being, an eternal and infinite being, but a property or a consequence of the existence of an infinite and eternal being.⁴⁴ Infinite space is immensity, but immensity is not God; and therefore infinite space is not God. Nor is there any difficulty in what is here advanced about space having parts. For infinite space is one, absolutely and essentially indivisible, and to suppose it parted is a contradiction in terms, because there must be space in the partition itself, which is to suppose it parted and yet not parted at the same time.⁴⁵ The immensity or omnipresence of God is no more a dividing of his substance into parts than his duration or continuance of existing is a dividing of his existence into parts. There is no difficulty here but what arises from the figurative abuse of the word *parts*.

4. If space was nothing but the order of things coexisting, it would follow that if God should remove in a straight line the whole entire material world, with any speed whatsoever, it would still always continue in the same place, and that nothing would receive any shock upon the most sudden stopping of that motion. And if time was nothing but the order of succession of created things, it would follow that if God had created the world millions of ages sooner than he did, it would not have been created at all the sooner. Further, space and time are quantities, which situation and order are not.

5. The argument in this paragraph is that, because space is uniform or alike, and one part does not differ from another, therefore the bodies created in one place, if they had been created in another place (supposing them to keep the same situation with regard to each other), would still have been created in the same place as before—which is a manifest contradiction. The uniformity of space does indeed prove that there could be no (external) reason why God should create things in one place rather than in another, but does that hinder his own will from being to itself a sufficient reason of acting in any place, when all places are indifferent or alike and there is good reason to act in some place?

6. The same reasoning takes place here as in the foregoing.

7 and 8. Where there is any difference in the nature of things, there the consideration of that difference always determines an intelligent and perfectly wise agent. But when two ways of acting are equally and alike good (as in the instances previously mentioned), to affirm in such case that God

44. Clarke refers to the note from his *Fourth Reply*, sec. 10.

45. Clarke refers to sec. 4 of his *Second Reply*.

cannot act at all,⁴⁶ or that it is no perfection in him to be able to act, because he can have no external reason to move him to act one way rather than the other, seems to be a denying God to have in himself any original principle or power of beginning to act, but that he must necessarily be (as it were mechanically) always determined by extrinsic things.

9. I suppose that determinate quantity of matter now in the world is the most convenient for the present frame of nature, or the present state of things, and that a greater (as well as a lesser) quantity of matter would have made the present frame of the world less convenient and consequently would not have been a greater object for God to have exercised his goodness upon.

10. The question is not what Goclenius, but what Sir Isaac Newton means by the word *sensorium*, when the debate is about Sir Isaac Newton's sense,⁴⁷ and not about the sense of Goclenius' book. If Goclenius takes the eye or ear or any other organ of sensation to be the *sensorium*, he is certainly mistaken. But when any writer expressly explains what he means by any term of art, of what use is it in this case to inquire in what different senses perhaps some other writers have sometimes used the same word? Scapula explains it by *domicilium*, the place where the mind resides.⁴⁸

11. The soul of a blind man does not see for this reason, because no images are conveyed to the *sensorium* where the soul is present (there being some obstruction in the way). How the soul of a seeing man sees the images to which it is present, we do not know, but we are sure it cannot consciously perceive what it is not present to, because nothing can act or be acted on where it is not.

12. God, being omnipresent, is really present to everything essentially and substantially.⁴⁹ His presence manifests indeed itself by its operation, but it could not operate if it was not there. The soul is not omnipresent to every part of the body and therefore does not and cannot itself actually operate on every part of the body, but only on the brain or certain nerves and spirits, which, by laws and communications of God's appointing, influence the whole body.

46. See Appendix A, no. 4.

47. Clarke refers to the note in sec. 3 of his *First Reply*.

48. Scapula, *Lexicon Graeco-Latinum* (1639), has "aitheterion: sentienti instrumentum. Nonnulli exp. domicilium sensus [instrument of sensation. Sometimes, place where the sense resides]."

49. Clarke quotes from the end of Newton's General Scholium: "God is omnipresent not only virtually, but substantially, for virtues cannot subsist without substance." See Appendix B, no. 2.

13 and 14. The *active forces*,⁵⁰ which are in the universe diminishing themselves so as to stand in need of new impressions, is no inconvenience, no disorder, no imperfection in the workmanship of the universe, but is the consequence of the nature of dependent things. This dependency of things is not a matter that needs to be rectified. The case of a human workman making a machine is quite another thing, because the powers or forces by which the machine continues to move are altogether independent of the artificer.

15. The phrase *intelligentia supramundana* may well be allowed, as it is here explained, but without this explication, the expression is very apt to lead to a wrong notion, as if God was not really and substantially present everywhere.

16. To the questions proposed here the answer is: that God does always act in the most regular and perfect manner, that there are no disorders in the workmanship of God, and that there is nothing more extraordinary in the alterations he is pleased to make in the frame of things than in his continuation of it; that in things absolutely equal and indifferent in their own nature, the will of God can freely choose and determine itself, without any external cause to impel it, and that it is a perfection in God to be able so to do; that space does not at all depend on the order or situation or existence of bodies.

17. And as to the notion of miracles, the question is not what it is that theologians or philosophers usually allow or do not allow, but what reasons men advance for their opinions. If a miracle is only that which surpasses the power of all created beings, then for a man to walk on the water, or for the motion of the sun or the earth to be stopped, is no miracle, since none of these things require infinite power to effect them. For a body to move in a circle around a center *in vacuo* if it is usual (as the planets moving about the sun), it is no miracle, whether it is effected immediately by God himself or mediately by any created power; but if it is unusual (as for a heavy body to be suspended and move so in the air), it is equally a miracle, whether it is effected immediately by God himself or mediately by any

50. Clarke notes that "The word *active force* signifies here nothing but motion and the impetus or relative impulsive force of bodies arising from and being proportional to their motion. For, the occasion of what has passed upon this head was the following passage." He then quotes from Newton's *Optics*, Query 31: "it appears that motion may be gotten or lost. But by reason of the tenacity of fluids and attrition of their parts and the weakness of elasticity in solids, motion is much more apt to be lost than gotten, and is always upon the decay. . . . Seeing therefore the variety of motion which we find in the world is always decreasing, there is a necessity of conserving and recruiting it by active principles." See Appendix B, no. 3.

invisible created power. Lastly, if whatever does not arise from, and is not explicable by the natural powers of body is a miracle, then every animal motion whatsoever is a miracle. This seems demonstrably to show that this learned author's notion of a miracle is erroneous.

Leibniz's Fourth Letter, Being an Answer to Clarke's Third Reply⁵¹

1. In absolutely indifferent things there is [no foundation for] choice,⁵² and consequently no election or will, since choice must be founded on some reason or principle.

2. A simple will without any motive⁵³ is a fiction, not only contrary to God's perfection, but also chimerical and contradictory, inconsistent with the definition of the will, and sufficiently refuted 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.⁵⁴ 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,⁵⁵ 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 a vacuum, 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 to suppose that the universe could have

51. June 2, 1716.

52. The bracketed remark is Clarke's addition; Leibniz had said "there is no choice at all."

53. Leibniz adds parenthetically "a mere will," aping Clarke's English.

54. See Appendix A, nos. 4 and 9.

55. Princess Sophia was Electress of Hanover and mother of George I of England; Herrenhausen was the residence of the Electors of Hanover.