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“THE MONADOLOGY”\*

1714

[G., VI, 607–23]

1. The *monad* which we are to discuss here is nothing but a simple substance which enters into compounds. *Simple* means without parts. (*Theodicy*, Sec. 10).

2. There must be simple substances, since there are compounds, for the compounded is but a collection or an *aggregate* of simples.

3. But where there are no parts, it is impossible to have either extension, or figure, or divisibility. The monads are the true atoms of nature; in a word, they are the elements of things.

4. We need fear no dissolution in them, and there is no conceivable way in which a simple substance can be destroyed naturally. (*Ibid.*, Sec. 89.)

5. For the same reason there is no way in which a simple substance can have a natural beginning, since it cannot be formed by composition.

6. So one can say that monads can only begin or end all at once, that is, they cannot begin except by creation or end except by annihilation. That which is compounded, instead, begins and ends in parts.

7. There is likewise no way of explaining how a monad can be altered or changed internally by any other creature, since nothing can be transposed in it, and we cannot conceive in it, as we can in composite things among whose parts there may be changes, that any internal motion can be excited, directed, increased, or diminished from without. Monads have no windows through which anything could enter or depart. Accidents cannot be detached from substances and march about outside of substances, as the sensible species of the Scholastics once did.<sup>1</sup> So neither substance nor attribute can enter a monad from without.

8. Yet it is necessary for monads to have some qualities; otherwise they would not even be beings. And if simple substances did not differ by their qualities, there would be no way of perceiving any change in things, since what is in the composite can come only from its simple ingredients; and monads, if they were without qualities, could not be distinguished from each other, especially since they do not differ in quantity. Consequently, assuming a plenum, each place would always receive in any motion the equivalent of what it had already had, and one state of things could not be distinguished from another.

9. It is even necessary for each monad to be different from every other. For there are never two things in nature which are perfectly alike and in which it is impossible to find a difference that is internal or founded on an intrinsic denomination.<sup>2</sup>

10. I also take it as agreed that every created being is subject to change, and therefore the created monad also, and further that this change is continuous in each one.

11. It follows from what I have said that the natural changes in monads come from

an *internal principle*, since an external cause could not influence [*influer dans*] their interior. (*Ibid.*, Secs. 396 and 400.)

12. But besides the principle of change there must be some distinguishing *detail in that which changes*, which constitutes the specific nature and the variety, so to speak, of simple substances.<sup>3</sup>

13. This detail must enfold a multitude in the unity or the simple. For every natural change takes place by degrees – something changes and something remains – and as a result there must be a plurality of affections and of relations in the simple substance, even though it has no parts.

14. The passing state which enfolds and represents a multitude in unity or in the simple substance is merely what is called *perception*. This must be distinguished from apperception or from consciousness, as what follows will make clear. It is in this that the Cartesians made a great mistake, for they disregarded perceptions which are not perceived. It is this, too, which led them to believe that only spirits are monads and that there are no souls in beasts or other entelechies. It led them into the popular confusion of a long stupor with death in a rigorous sense, which made them support the Scholastic prejudice that souls are entirely separate, and even confirmed some ill-balanced minds in a belief in the mortality of the soul.

15. The action of the internal principle which brings about change or the passage from one perception to another can be called *appetition*. It is true that appetite need not always fully attain the whole perception to which it tends, but it always attains some of it and reaches new perceptions.

16. We ourselves experience a multitude in a simple substance when we find that the slightest thought which we perceive enfolds a variety in its object. Hence everyone who recognizes that the soul is a simple substance should also recognize this multitude in the monad, and Mr. Bayle ought not to find the difficulty in it which he does in his *Dictionary*, in the article on Rorarius.<sup>4</sup>

17. It must be confessed, moreover, that perception and what depends on it are *inexplicable by mechanical reasons*, that is, by figures and motions. If we pretend that there is a machine whose structure enables it to think, feel, and have perception, one could think of it as enlarged yet preserving its same proportions, so that one could enter it as one does a mill. If we did this, we should find nothing within but parts which push upon each other; we should never see anything which would explain a perception. So it is in the simple substance, and not in the composite substance or machine, that perception must be sought. Furthermore, this is the only thing – namely, perceptions and their changes – that can be found in simple substance. It is in this alone that the *internal actions* of simple substances can consist. (*Ibid.*, Preface.<sup>5</sup>)

18. All simple substances or created monads might be given the name of *entelechies*, for they have in them a certain perfection (*ἔχουσι τὸ ἐντελέες*). There is in them a certain sufficiency (*αὐτάρκεια*) which makes them the sources of their internal actions and so to speak, incorporeal automata. (*Ibid.*, Sec. 87.)

19. If we wish to designate by soul everything which has perceptions and appetites in the general sense which I have just explained, all simple substances or created monads could be called souls. But since sentiment is something more than a simple perception, I agree that the general name of monads or entelechies is enough for simple substances which have only perception and that only those should be called souls in which perception is more distinct and accompanied by memory.<sup>6</sup>

20. For we experience within ourselves a state in which we remember nothing and have no distinguishable perception, as when we fall into a swoon or are overcome by a deep and dreamless sleep. In this condition the soul does not differ sensibly from a simple monad. But since this condition does not last, and the soul emerges from it, the soul is something more. (*Ibid.*, Sec. 64.)

21. It does not follow that during this state the simple substance is without any perception. For the reasons already given, that is not even possible, for it cannot perish and it cannot subsist without some affection, which is nothing but its perception. But when there is a large multitude of small perceptions with nothing to distinguish them, we are stupefied, as when we turn continuously in the same direction several times, so that a dizziness overcomes us and we grow faint and can distinguish nothing. Death can produce this state in animals for a time.

22. Since every present state of a simple substance is a natural consequence of its preceding state, in such a way that the present is great with the future (*ibid.*, Sec. 360),

23. and since we perceive our perceptions when awaking from a stupor, it follows necessarily that we have had these perceptions immediately before, even though we did not then perceive them, for a perception can come naturally only from another perception, just as one motion can come naturally only from another motion (*Ibid.*, Secs. 401–3).

24. From this we can see that if we had nothing distinctive in our perceptions, and nothing lifted out, so to speak, and of a higher flavor, we should always be in a state of stupor. This is the state of the naked monads.

25. We see too that nature has given heightened perceptions to animals by the care she has taken to provide them with organs which gather numerous light rays, or many air waves, so as to give them greater effectiveness through their union. There is something approaching this in smell, taste, and touch and perhaps in many other senses which we do not know. I will explain presently how what occurs in the soul represents what happens in the organs.

26. Memory provides a kind of *consecutiveness* to souls which simulates reason but which must be distinguished from it. Thus we see that when animals have a perception of something which strikes them and of which they have had a similar perception previously, they are led by the representation of their memory to expect whatever was connected with it in this earlier perception and so come to have feelings like those which they had before. When one shows a stick to dogs, for example, they remember the pain it has caused them and whine or run away. (*Ibid.*, Prelim., Sec. 65.)

27. The strong imagination which strikes and moves them comes either from the magnitude or from the number of the perceptions which preceded it. For often one single strong impression produces at once the effect of a long-formed *habit* or of many frequently repeated ordinary perceptions.

28. Men act like beasts insofar as the sequences of their perceptions are based only on the principle of memory, like empirical physicians who have a simple practice without theory. We are all mere empirics in three-fourths of our actions. For example, when we expect daylight tomorrow, we act as empiricists, because this has always happened up to the present. Only an astronomer concludes it by reason.

29. But it is the knowledge of necessary and eternal truths which distinguishes us from simple animals and gives us *reason* and the sciences, lifting us to the knowledge of ourselves and of God. It is this within us which we call the rational soul or *spirit*.

30. It is also by the knowledge of necessary truths and by their abstractions that we rise to *reflective acts*, which enable us to think of what is called *I* and to consider this or that to be in us; it is thus, as we think of ourselves, that we think of being, of substance, of the simple and the compound, of the immaterial, and of God himself, conceiving of that which is limited in us as being without limits in him. These reflective acts provide us with the principal objects of our reasonings (*Ibid.*, Preface, 4a).

31. Our reasonings are based upon two great principles: the first the *principle of contradiction*, by virtue of which we judge that false which involves a contradiction, and that *true* which is opposed or contradictory to the false (*Ibid.*, Secs. 44 and 196);

32. and the second the *principle of sufficient reason*, by virtue of which we observe that there can be found no fact that is true or existent, or any true proposition, without there being a sufficient reason for its being so and not otherwise, although we cannot know these reasons in most cases (*Ibid.*, Secs. 44 and 196).

33. There are also two kinds of truths, truths of *reasoning* and truths of *fact*. Truths of reasoning are necessary, and their opposite is impossible. Truths of fact are contingent, and their opposite is possible. When a truth is necessary, the reason for it can be found by analysis, resolving it into more simple ideas and truths until we reach the primitive (*Ibid.*, Secs. 170, 174, 189, 280–82, and 367; Abr. obj. 3).

34. It is thus that speculative *theorems* and *rules of practice* in mathematics are reduced by analysis to *definitions*, *axioms*, and *postulates*.

35. There are, finally, *simple ideas* which cannot be defined, and there are also axioms and postulates, or in brief, *primitive principles*, which cannot be proved and need no proof. And these are *identical propositions* whose opposites contain an explicit contradiction.

36. But a *sufficient reason* must also be found in *contingent truths* or *truths of fact*, that is to say, in the sequence of things distributed through the universe of creatures, whose analysis into particular reasons could proceed into unlimited detail because of the immense variety of things in nature and the division of bodies into the infinite. There is an infinity of shapes and motions, present and past, which enter into the efficient cause of my present writing, and there is an infinity of small inclinations and dispositions of my soul, present and past, which enter into its final cause. (*Ibid.*, Secs. 36, 37, 44, 45, 49, 52, 121, 122, 337, 340, and 344.)

37. As all this *detail* includes other earlier or more detailed contingent factors, each of which in turn needs a similar analysis to give its reason, one makes no progress, and the sufficient or final reason will have to be outside the sequence or *series* of these detailed contingent factors, however infinite they may be.

38. Thus the final reason of things must be in a necessary substance in which the detail of the changes can be contained only eminently, as in their source. It is this substance that we call God. (*Ibid.*, Sec. 7.)

39. Now since this substance is a sufficient reason for all this detail, and the detail is interconnected throughout, *there is only one God, and this God is enough*.

40. We may conclude, too, that this supreme substance, being unique, universal, and necessary, and having nothing outside of it which is independent of it, and being a simple consequence of possible being, must be incapable of limits and must contain as much reality as is possible.

41. It follows from this that God is absolutely perfect; *perfection* being nothing but

the quantity of positive reality taken strictly, when we put aside the limits or bounds in the things which are limited. But where there are no bounds, that is, in God, perfection is absolutely infinite. (*Ibid.*, Sec. 22; Preface, 4a.)

42. It also follows that creatures receive their perfections from the influence of God but that their imperfections are due to their own nature, which is incapable of being limitless. For it is in this that they differ from God. (*Ibid.*, Secs. 20, 27–31, 153, 167, and 377ff.) This *original imperfection* of creatures is noticeable in the *natural inertia* of the body. (*Ibid.*, Secs. 30 and 380; Abr. obj. 5.<sup>7</sup>)

43. It is also true that the source not only of existences but also of essences is in God, insofar as these essences are real or insofar as there is something real in possibility. This is because the understanding of God is the region of eternal truths or of the ideas upon which they depend and because without him there would be no reality in possibilities – not only nothing existent but also nothing possible. (*Ibid.*, Sec. 20.)

44. For if there is a reality in the essences or possibilities, or in the eternal truths as well, this reality must be founded on something existent and actual, and therefore in the existence of a necessary being, in whom essence includes existence or in whom it is enough to be possible in order to be actual. (*Ibid.*, Secs. 184, 189, and 335.)

45. Thus God alone, or the necessary being, has the privilege of necessarily existing if he is possible. And since nothing can prevent the possibility of that which is without any limits, without any negation, and consequently without any contradiction, this fact alone suffices to know the existence of God a priori. So we have proved it through the reality of eternal truths.<sup>8</sup> But we have also proved it a posteriori, since contingent beings exist, and their final or sufficient reason can be discovered only in a necessary being which has its reason for its existence in itself.

46. We must not imagine as do some, however, that since the eternal truths are dependent upon God, they are arbitrary and dependent on his will, as Descartes and later Mr. Poiret seem to have held.<sup>9</sup> This is true only of contingent truths, whose principle is *fitness* or the choice of the *best*; necessary truths, however, depend solely on his understanding and are its internal object. (*Ibid.*, Secs. 180, 184, 185, 335, 351, and 380.)

47. So only God is the primary unity or the simple original substance of which all the created or derivative monads are products, and from whom they are born, so to speak, by continual fulgurations of the divinity from moment to moment, but limited by the receptivity of the created being, for whom it is essential to have limits. (*Ibid.*, Secs. 382–91, 398, and 395.)

48. There is in God the *power* which is the source of everything, there is also the *knowledge* which contains the variety of the ideas, and finally, there is the *will* which makes changes or products in accordance with the principle of the best. This corresponds to what is in created monads the subject or basis, the perceptive faculty, and the appetitive faculty. But in God these attributes are absolutely infinite or perfect, and in created monads or entelechies – or *perfectihabies*, as Hermolaus Barbarus translated this word – they are nothing but imitations in the degree to which the monad has perfection. (*Ibid.*, Secs. 7, 149, 150, and 87.)

49. The created being is said to *act* outwardly insofar as it has perfection and to *suffer* from another insofar as it is imperfect. Thus *action* is attributed to a monad insofar as it has distinct perceptions, and *passion* insofar as it has confused ones. (*Ibid.*, Secs. 32, 66, and 386.)

50. One created being is more perfect than another if one finds in it that which will supply a reason a priori for what happens in the other. And it is because of this that it is said to act upon the other.

51. But in simple substances there is only an *ideal* influence of one monad upon another. This can have its effect only by the intervention of God, insofar as one monad may with reason demand, in the ideas of God, that God should have a concern for it in regulating the rest from the beginning of things. For since a created monad can have no physical influence on the interior of another, it is only in this way that one can be dependent on the other. (*Ibid.*, Secs. 9, 54, 65, 66, and 201; Abr. obj. 3.)

52. It is in this way that actions and passions are mutual among creatures. For God, comparing two simple substances, finds the reasons in each which oblige him to adapt the other to it, with the result that whatever is active in certain respects is passive considered from another point – *active* insofar as what we distinctly know in it serves as a reason for what happens in another, but *passive* insofar as the reason for what happens in it is found in what we know distinctly in another. (*Ibid.*, Sec. 66.)

53. Now since there is an infinity of possible universes in the ideas of God, but only one can exist, there must be a sufficient reason for God's choice which determines him to one rather than another. (*Ibid.*, Secs. 8, 10, 44, 173, 196–97, 225, and 414–16.)

54. This reason can be found only in the *fitness* or in the degrees of perfection which these worlds contain, each possible one having a right to claim existence in the measure of the perfection which it enfolds. (*Ibid.*, Secs. 74, 167, 350, 201, 130, 352, 345–46, and 354.)

55. And this is the cause for the existence of the best, which his wisdom causes God to know, his goodness makes him choose, and his power makes him produce. (*Ibid.*, Secs. 8, 78, 80, 84, 119, 204, 206, and 208; Abr. obj. 1, 8.)

56. Now this mutual connection or accommodation of all created things to each other and of each to all the rest causes each simple substance to have relations which express all the others and consequently to be a perpetual living mirror of the universe. (*Ibid.*, Secs. 130 and 360.)

57. Just as the same city viewed from different sides appears to be different and to be, as it were, multiplied in perspectives, so the infinite multitude of simple substances, which seem to be so many different universes, are nevertheless only the perspectives of a single universe according to the different points of view of each monad. (*Ibid.*, Sec. 147.)

58. This is the means of obtaining the greatest variety possible, but with the greatest possible order; that is to say, this is the means of attaining as much perfection as possible. (*Ibid.*, Secs. 120, 124, 241–42, 215, 243, and 275.)

59. It is only this hypothesis, moreover, which I dare say is demonstrated, that exalts the greatness of God as one ought. Mr. Bayle recognized this when he raised objections to it in his *Dictionary* (article Rorarius), where he was even inclined to believe that I ascribed too much to God, more than is possible. Yet he was unable to set forth any reason why this universal harmony, which results in every substance expressing exactly all the others by means of the relations which it has with them, should be impossible.

60. From what I have been saying, furthermore, we may see the a priori reasons why things could not be otherwise than they are. This is because God has had regard for each part in regulating the whole and in particular for each monad. The nature of

the monad being to represent, nothing can keep it from representing only a part of things, though it is true that its representation is merely confused as to the details of the whole universe and can be distinct for a small part of things only, that is, for those which are the nearest or the greatest in relation to each individual monad.<sup>10</sup> Otherwise each monad would be a divinity. It is not in the object but in the modification of their knowledge of the object that the monads are limited. They all move confusedly toward the infinite, toward the whole, but they are limited and distinguished from each other by the degrees of their distinct perceptions.

61. In this respect compound beings are in symbolic agreement with the simple. For everything is a plenum, so that all matter is bound together, and every motion in this plenum has some effect upon distant bodies in proportion to their distance, in such a way that every body not only is affected by those which touch it and somehow feels whatever happens to them but is also, by means of them, sensitive to others which adjoin those by which it is immediately touched. It follows that this communication extends to any distance whatever. As a result, every body responds to everything which happens in the universe, so that he who sees all could read in each everything that happens everywhere, and, indeed, even what has happened and will happen, observing in the present all that is removed from it, whether in space or in time. "All things are conspirant", as Hippocrates said.<sup>11</sup> But a soul can read within itself only what it represents distinctly; it cannot all at once develop all that is enfolded within it, for this reaches to infinity.

62. Thus, although each created monad represents the whole universe, it represents more distinctly the body which is particularly affected by it and of which it is the entelechy. And as this body expresses the whole universe by the connection between all matter in the plenum, the soul also represents the whole universe in representing the body which belongs to it in a particular way. (*Ibid.*, Sec. 400.)

63. The body belonging to a monad which is its entelechy or soul constitutes what may be called a *living being* with that entelechy; with a soul it constitutes an *animal*. Now the body of a living being or an animal is always organic for since every monad is a mirror of the universe in its own way, and the universe is regulated in perfect order, there must also be an order in the being which represents it, that is to say, in the perceptions of the soul and therefore also in the body, according to which the universe is represented in it. (*Ibid.*, Sec. 403.)

64. So each organic body belonging to a living being is a kind of divine machine or natural automaton infinitely surpassing all artificial automata. For a machine made by human art is not a machine in each of its parts; for example, the tooth of a brass wheel has parts or fragments which are not artificial so far as we are concerned, and which do not have the character of a machine, in that they fit the use for which the wheel was intended. But the machines of nature, living bodies, are still machines in their smallest parts, into infinity. It is this that makes the difference between nature and art, that is, between the divine art and ours. (*Ibid.*, Secs. 134, 146, 194, and 403.<sup>12</sup>)

65. And the author of nature has been able to practice this divine and infinitely wonderful artisanship because each part of matter not only is infinitely divisible, as the ancients recognized, but also is actually subdivided without end, each part into parts, each of which has its own distinct movement. Otherwise it would be impossible that each part of matter could express the whole universe. (*Ibid.*, Prelim., Sec. 70; Sec. 195.)

66. It is clear from this that there is a world of creatures, living beings, animals, entelechies, souls, in the smallest particle of matter.

67. Each part of matter can be thought of as a garden full of plants or as a pond full of fish. But each branch of the plant, each member of the animal, each drop of its humors, is also such a garden or such a pond.

68. And although the earth and the air interspersed between the plants of the garden, and the water interspersed between the fish in the pond, are not themselves plants or fish, they also contain them, though most frequently of a fineness imperceptible to us.

69. Thus there is nothing fallow, sterile, or dead in the universe; no chaos, no confusions, save in appearance. This would be comparable, perhaps, to a pond seen from a distance, in which we should see the confused swarming movements of the fish, so to speak, without seeing the fish themselves. (*Ibid.*, Preface, 5b-6.<sup>13</sup>)

70. Hence we see that each living body has a dominant entelechy which is the soul in the case of an animal; but the members of this living body are full of other living beings, plants, and animals, each one of which also has its dominant entelechy or soul.

71. But we must not imagine, as some have done who have misunderstood my thought, that each soul has its own mass or quantity of matter belonging to it or affected by it forever, and that it consequently possesses other inferior living beings forever destined to serve it. For all bodies are in a perpetual flux, like rivers, and parts are passing in and out from them continually.

72. Thus the soul only changes its body little by little and by degrees, so that it is never deprived of all its organs at once; there is often metamorphosis in animals but never metempsychosis or transmigration of souls. Neither are there entirely *separated* souls or higher spirits [*genies*] without bodies. God alone is entirely detached from body. (*Ibid.*, Secs. 90 and 124.)

73. It is because of this, too, that there is never complete generation or, strictly speaking, perfect death, consisting in the separation of the soul. What we call *generation* is a development and an increase, just as what we call death is an envelopment and a diminution.

74. Philosophers have been greatly embarrassed over the origin of forms, entelechies, or souls. Today, however, when exact investigations made on plants, insects, and animals have shown that the organic bodies of nature are never produced from chaos or from putrefaction, but always through seeds in which there is undoubtedly some *preformation*, it has been concluded not only that the organic body was already there before conception but also that there was a soul in this body and, in a word, that the animal itself was there, so that conception is merely the means by which the animal is prepared for a great transformation by which it becomes an animal of another kind. Something approaching this may even be seen apart from generation, as when worms become flies and caterpillars become butterflies. (*Ibid.*, Secs. 86, 89; Preface; Secs. 90, 187, 188, 403, 86, and 397.)

75. The *animals*, some of which are raised by means of conception to the level of greater animals, can be called *spermatie*. But those among them which remain in their own kind – and this is most of them – are born, multiply, and perish like large animals; there is only a small number of chosen ones which pass into a greater theater.

76. This is but half of the truth, however. So I have concluded that if an animal never has a beginning naturally, neither does it end naturally, and that there will be not only no generation but also, rigorously speaking, no total destruction or death.



And this a posteriori reasoning, drawn from experience, agrees perfectly with the principles which I have deduced a priori above. (*Ibid.*, Sec. 90.)

77. So it can be said that not only the soul, as mirror of an indestructible universe, is itself indestructible but also the animal itself, although its machine may often perish in part and cast off or take on particular organic coverings.

78. These principles have given me a method for explaining naturally the union or better, the conformity of the soul and the organic body. The soul follows its own laws, and the body its own likewise, and they agree with each other by virtue of the harmony pre-established between all substances, since they are all representations of one and the same universe. (*Ibid.*, Preface; Secs. 340, 352, 353, and 358.)

79. Souls act according to the laws of final causes through their appetitions, ends, and means. Bodies act according to the laws of efficient causes or the laws of motion. And the two kingdoms, that of efficient and that of final causes, are in harmony with each other.

80. Descartes recognized that souls cannot give force to bodies because the same quantity of force is always conserved in matter. He believed, however, that the soul could change the direction of the body. But this was because the law of nature was still unknown in his day, according to which matter conserves also the same total direction. If he had noticed this, he would have fallen upon my system of pre-established harmony. (*Ibid.*, Preface; Secs. 22, 59, 60, 61, 63, 66, 346-47, 354, and 355.)

81. In this system bodies act as if there were no souls (to assume an impossibility), and souls act as if there were no bodies, and both act as if each influenced the other.

82. As for *spirits* or rational souls, although I find that what I have just been saying is true at bottom of all living beings and animals (that is, that the soul and the animal begin only with the world and come to an end only with the world), yet there is this peculiar thing about rational animals, that their little spermatric animals, as long as they are only this, have only ordinary or sensitive souls, but as soon as the elect among these, so to speak, arrive at human nature through actual conception, their sensitive souls are raised to the level of reason and to the prerogative of spirits. (*Ibid.*, Secs. 91 and 397.)

83. Among other differences which exist between ordinary souls and spirits, some of which I have already pointed out, there is still this: souls in general are living mirrors or images of the universe of created beings, while spirits are also images of divinity itself or of the author of nature, capable of knowing the system of the universe and of imitating it to some extent by means of architectonic samples, each spirit being like a little divinity within its own sphere. (*Ibid.*, Sec. 147.)

84. It is this which renders spirits capable of entering into a kind of society with God and makes his relation to them not merely that of an inventor to his machine (as God is related to other creatures) but also that of a prince to his subjects and even a father to his children.

85. It is easy to conclude from this that the assemblage of all spirits must make up the city of God, that is to say, the most perfect state which is possible under the most perfect of monarchs. (*Ibid.*, Sec. 146; Abr. obj. 2.)

86. This city of God, this truly universal monarchy, is a moral world within the natural world and is the most exalted and the most divine of all of God's works. In it the true glory of God consists, for he would have no glory if his greatness and goodness were not known and admired by spirits. It is also in relation to this divine city

that his distinctive goodness is found, whereas his wisdom and power are shown everywhere.

87. As we have established above a perfect harmony between two natural kingdoms, that of efficient and that of final causes, we must also point out here another harmony between the physical kingdom of nature and the moral kingdom of grace, that is to say, between God considered as architect of the machine of the universe and God considered as monarch of the divine city of spirits. (*Ibid.*, Secs. 62, 74, 118, 248, 112, 130, and 247.)

88. The result of this harmony is that things lead to grace by means of the very ways of nature and that this globe, for example, must be destroyed and repaired by natural ways at those times which the government of spirits demands for the punishment of some and the reward of others. (*Ibid.*, Secs. 18–19, 110, 244, 245, and 340.)

89. It can also be said that God as architect satisfies God as lawgiver in everything and that sins must therefore carry their punishment with them by the order of nature, and even by virtue of the mechanical structure of things; and that noble actions, similarly, attain their rewards through ways that are mechanical in relation to bodies, although this cannot and should not always happen at once.

90. Finally, under this most perfect government there will be no good action without reward and no evil action without punishment, and everything must turn out for the well-being of those who are good, that is to say, those who are not dissatisfied in this great state, who trust in Providence after they have done their own duty, who love and imitate the Author of all good as they ought, taking pleasure in the contemplation of his perfections after the nature of the true *pure love*<sup>14</sup>, which makes us find our pleasure in the happiness of the beloved. This it is which makes the wise and virtuous work for all that seems to conform to the divine will, presumptive or antecedent, and yet content themselves with what God causes to happen to them by his will, secret, consequent, and decisive<sup>15</sup>; recognizing as they do that if we could sufficiently understand the order of the universe, we should find that it surpasses the desires of the most wise and that it is impossible to make it better than it is, not only for the whole in general, but also for ourselves in particular, if we are attached as we should be to the Author of the whole, not only as to the architect and efficient cause of our being, but also as to our master and final cause, who must be the whole end of our will and can alone make our happiness. (*Ibid.*, Sec. 134 end; Preface, 4; Sec. 278.)

#### REFERENCES

\* Leibniz's own manuscripts of this work bear no title, but it has been known by this title since Erdmann adopted it in his edition, following the designation of the first published version, a German translation, in 1720. For further considerations see the introduction to No. 66. The references to the *Theodicy* were added by Leibniz in the first revision.

<sup>1</sup> See p. 329, note 30, and p. 461, note 9.

<sup>2</sup> See p. 271, note 4, and the reference there to the Introduction. 'Denomination' implies more than 'quality' (in Sec. 8, preceding), for it is a logical term and points to an essence or sufficient reason for changing qualities.

<sup>3</sup> The internal principle in Sec. 11 is clearly the law of the individual series, or the individual concept; the detail in that which changes is the particular value of this law or concept which constitutes the changing qualities of the monad. The dynamic parallels to the two concepts are primary and secondary force. Leibniz now proceeds further to divide the details (or secondary

force) into aspects of activity and passivity and, from another point of view, into perceptions and the appetites which impel them. Thus he offers a more popular derivation of the organic structure of the monad than in the more critical Scholastic discussions with such men as De Volder and Des Bosses.

<sup>4</sup> See Nos. 52 and 60 above.

<sup>5</sup> G., VI, 41ff.

<sup>6</sup> Memory is thus still considered by Leibniz as a condition necessary for conscious perceptions (cf. p. 553, note 4). Leibniz has held to this point since 1670, when memory was used to distinguish between matter and mind (No. 8, I, Sec. 17).

<sup>7</sup> The last sentence appears in the first revision; G. has it in a footnote.

<sup>8</sup> Since the ontological argument here depends upon the principle (in Sec. 44) that the reality of essences or possibilities must be founded upon existence, this can hardly be regarded as the ontological argument in its purity. Thus the emphasis in the argument has shifted since Leibniz's early period (see Nos. 14 and 20) from a consideration of the possibility of the existence of a perfect being to the existence of possibilities.

<sup>9</sup> Pierre Poiret (1646-1719) moved from Cartesianism to a theosophic interpretation inspired by Antoinette Bourignon.

<sup>10</sup> The relations between monads are not spatial, of course, and therefore do not differ in distance in the phenomenal sense. As Sec. 61 shows, spatial relations are merely symbolic analogies to the ultimate relations of perception. Distance is here a matter of the number of middle terms intervening in the analysis of perceptions.

<sup>11</sup> Leibniz writes *σύμπενοια πάντα*; he makes the same citation in the *New Essays*, Introduction (G., V., 48).

<sup>12</sup> G. omits the references to the *Theodicy*.

<sup>13</sup> G., VI, 40, 44.

<sup>14</sup> See p. 430, notes 3 and 9.

<sup>15</sup> St. Thomas distinguished (*De veritate*, Q. XXIII, a, 3c; *Summa theologica*, I, Q. XIX, a, 6) between the antecedent and consequent will of God. Leibniz's definitions, which modify Thomas', are found in *Theodicy*, Part I, Sec. 23. God's antecedent will is for the good, absolutely; his consequent will is for the best possible in existing conditions.