

the coarsest of minds have grasped them. Thus his gospel has entirely changed the course of human affairs; he has brought us to know the kingdom of heaven, and that perfect republic of minds which deserves the title of City of God, whose admirable laws he has disclosed to us. He alone has made us see how much God loves us and with what exactitude he has provided for everything that concerns us; that caring for sparrows, he will not neglect the rational beings which are infinitely more dear to him; that all the hairs on our head are numbered; that heaven and earth will perish rather than the word of God and what pertains to the economy of our salvation; that God has more regard for the least of the intelligent souls than for the whole machinery of the world; that we must not fear those who can destroy bodies but cannot harm souls, because God alone can make souls happy or unhappy; and that the souls of the just, in his hands, are safe from all the upheavals of the universe, God alone being able to act upon them; that none of our actions are forgotten; that everything is taken account of, even idle words or a spoonful of water well used; finally, that everything must result in the greatest welfare of those who are good; that the just will be like suns; and that neither our senses nor our mind has ever tasted anything approaching the happiness that God prepares for those who love him.

MONADOLOGY

1. The *monad*, which we shall discuss here, is nothing but a simple substance that enters into composites—simple, that is, without parts.
2. And there must be simple substances, since there are composites; for the composite is nothing more than a collection, or *aggregate*, of simples.
3. But where there are no parts, neither extension, nor shape, nor divisibility is possible. These monads are the true atoms of nature and, in brief, the elements of things.
4. There is also no dissolution to fear, and there is no conceivable way in which a simple substance can perish naturally.
5. For the same reason, there is no conceivable way a simple substance can begin naturally, since it cannot be formed by composition.
6. Thus, one can say that monads can only begin or end all at once, that is, they can only begin by creation and end by annihilation, whereas composites begin or end through their parts.
7. There is also no way of explaining how a monad can be altered or changed internally by some other creature, since one cannot transpose anything in it, nor can one conceive of any internal motion that can be excited, directed, augmented, or diminished within it, as can be done in composites, where there can be change among the parts. The monads have no windows through which something can enter or leave. Accidents cannot be detached, nor can they go about outside of substances, as the sensible species of the Scholastics once did. Thus, neither substance nor accident can enter a monad from without.
8. However, monads must have some qualities, otherwise they would not even be beings. And if simple substances did not differ at all in their qualities, there would be no way of perceiving any change in things, since what there is in a composite can only come from its simple ingredients; and if the monads had no qualities, they would be indiscernible from one another, since they also do not differ in quantity. As a result, assuming a plenum, in motion, each place would always receive only the equivalent of what it already had, and one state of things would be indistinguishable from another.
9. It is also necessary that each monad be different from each other. For there are never two beings in nature that are perfectly alike, two beings in which it is not possible to discover an internal difference, that is, one founded on an intrinsic denomination.
10. I also take for granted that every created being, and consequently the created monad as well, is subject to change, and even that this change is continual in each thing.
11. It follows from what we have just said that the monad's natural changes come from an *internal principle*, since no external cause can influence it internally.
12. But, besides the principle of change, there must be *diversity* [*un détail*] in that which changes, which produces, so to speak, the specification and variety of simple substances.
13. This diversity must involve a multitude in the unity or in the simple. For,

since all natural change is produced by degrees, something changes and something remains. As a result, there must be a plurality of properties [affections] and relations in the simple substance, although it has no parts.

14. 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 apperceive. 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.

15. The action of the internal principle which brings about the change or passage from one perception to another can be called *appetition*; it is true that the appetite cannot always completely reach the whole perception toward which it tends, but it always obtains something of it, and reaches new perceptions.

16. We ourselves experience a multitude in a simple substance when we find that the least thought we ourselves apperceive involves variety in its object. Thus, all those who recognize that the soul is a simple substance should recognize this multitude in the monad; and Mr. Bayle should not find any difficulty in this as he has done in his *Dictionary* article, "Rorarius."¹

17. Moreover, we must confess that the *perception*, and what depends on it, is *inexplicable in terms of mechanical reasons*, that is, through shapes and motions. If we imagine that there is a machine whose structure makes it think, sense, and have perceptions, we could conceive it enlarged, keeping the same proportions, so that we could enter into it, as one enters into a mill. Assuming that, when inspecting its interior, we will only find parts that push one another, and we will never find anything to explain a perception. And so, we should seek perception in the simple substance and not in the composite or in the machine. Furthermore, this is all one can find in the simple substance—that is, perception and their changes. It is also in this alone that all the *internal actions* of simple substances can consist.

18. One can call all simple substances or created monads entelechies, for they have in themselves a certain perfection (*echousi to enteles*); they have a sufficiency (*autarkeia*) that makes them the sources of their internal actions, and, so to speak, incorporeal automata.

19. If we wish to call *soul* anything that has *perceptions* and *appetites* in the general sense I have just explained, then all simple substances or created monads can be called souls. But, since sensation is something more than a simple perception, I think that the general name of monad and entelechy is sufficient for simple substances which only have perceptions, and that we should only call those substances *souls* where perception is more distinct and accompanied by memory.

1. [Leibniz's *Theodicy* was, to a large extent, an attempt to answer the skeptical arguments, from Bayle's *Historical and Critical Dictionary*, regarding the impossibility of reconciling faith with reason. "Rorarius," an article of the *Dictionary*, was Bayle's occasion for a discussion of the problem of the souls of animals: Jerome Rorarius (1485–1566) wrote a treatise maintaining that men are less rational than the lower animals. In "Rorarius" Bayle criticizes Leibniz's views—R. A. and D. G.]

20. For we experience within ourselves a state in which we remember nothing and have no distinct perception; this is similar to when we faint or when we are overwhelmed by a deep, dreamless sleep. In this state the soul does not differ sensibly from a simple monad; but since this state does not last, and since the soul emerges from it, our soul is something more.

21. And it does not at all follow that in such a state the simple substance is without any perception. This is not possible for the previous reasons; for it cannot perish, and it also cannot subsist without some property [affection], which is nothing other than its perception. But when there is a great multitude of small perceptions in which nothing is distinct, we are stupefied. This is similar to when we continually spin in the same direction several times in succession, from which arises a dizziness that can make us faint and does not allow us to distinguish anything. Death can impart this state to animals for a time.

22. And since every present state of a simple substance is a natural consequence of its preceding state, the present is pregnant with the future.

23. Therefore, since on being awakened from a stupor we apperceive our perceptions, it must be the case that we had some perceptions immediately before, even though we did not apperceive them; for a perception can only come naturally from another perception, as a motion can only come naturally from a motion.

24. From this we see that if, in our perceptions, we had nothing distinct or, so to speak, in relief and stronger in flavor, we would always be in a stupor. And this is the state of bare monads.

25. We also see that nature has given heightened perceptions to animals from the care she has taken to furnish them organs that collect several rays of light or several waves of air, in order to make them more effectual by bringing them together. There is something similar to this in odor, taste, and touch, and perhaps in many other senses which are unknown to us. I will soon explain how what occurs in the soul represents what occurs in the organs.

26. Memory provides a kind of sequence in souls, which imitates reason, but which must be distinguished from it. We observe that when animals have the perception of something which strikes them, and when they previously had a similar perception of that thing, then, through a representation in their memory, they expect that which was attached to the thing in the preceding perception, and are led to have sensations similar to those they had before. For example, if we show dogs a stick, they remember the pain that it caused them and they flee.

27. And the strong imagination that strikes and moves them comes from the magnitude or the multitude of the preceding perceptions. For often a strong impression produces, all at once, the effect produced by a long *habit* or by many lesser, reiterated perceptions.

28. Men act like beasts insofar as the sequence of their perceptions results from the principle of memory alone; they resemble the empirical physicians who practice without theory. We are all mere Empirics in three fourths of our actions. For example, when we expect that the day will dawn tomorrow, we act like an Empiric,²

2. [The Empirics were a sect of physicians before Galen (ca. A.D. 150). In later times, the epithet "Empiric" was given to physicians who despised theoretical study and trusted tradition and their own experience.]