G. W. Leibniz, *The Principles of Philosophy, or the Monadology* (1714)[1]

1. The monad, which we shall discuss here, is nothing but a simple substance that enters into composites—simple, that is, without parts (*Theodicy*, sec. 10).

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.[2]

8. However, monads must have some qualities; otherwise they would not even be beings.[3] 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

1. Translated from the French by R. Ariew and D. Garber in G. W. Leibniz, *Philosophical Essays* (Indianapolis: Hackett Publishing Company, 1989). "Principles . . . " was probably Leibniz's title. References to the *Theodicy* are not found in the final copy, but are taken from an earlier draft. It should be stressed that the *Monadology* was not intended as an introduction to Leibniz's philosophy, but rather as a condensed statement of the main principles of his philosophy and an elucidation of some of the passages of his *Theodicy*.

2. Deleted from the first draft: "Monads are not mathematical points. For these points are only extremities, and the line cannot be composed of points."

3. Deleted from earlier drafts: "and if simple substances were nothings, the composites would reduce to nothing."

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[4] (Pref. 2.b).

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 (sec. 396, 400).

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.[5]

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."[6]

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, perceptions and their changes. It is also in this alone that all the internal actions of simple substances can consist.

4. Cf. "On Nature Itself," sec. 13, in Leibniz, *Philosophical Essays*.

5. For Leibniz's critique of Descartes on the immortality of the soul, see the "Letter to Molanus," above, in the section on Descartes' *Meditations*.

6. 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; see Bayle, "Rorarius," notes H and L.

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 (sec. 87).

19. If we wish to call *soul* everything 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.

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 (sec. 64).

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 (sec. 360).

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 (secs. 401–3).

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 (Prelim., sec. 65).

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,[7] because until now it has always

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

been thus. Only the astronomer judges this by reason (Prelim., sec. 65).

29. But the knowledge of eternal and necessary truths is what distinguishes us from simple animals and furnishes us with *reason* and the sciences, by raising us to a knowledge of ourselves and of God. And that is what we call the rational soul, or *mind*, in ourselves.

30. It is also through the knowledge of necessary truths and through their abstractions that we rise to *reflective* acts, which enable us to think of that which is called "I" and enable us to consider that this or that is in us. And thus, in thinking of ourselves, we think of being, of substance, of the simple and of the composite, of the immaterial and of God himself, by conceiving that that which is limited in us is limitless in him. And these reflective acts furnish the principal objects of our reasonings (*Theod*. Preface 4.a).

31. Our reasonings are based on *two great principles, that of contradiction*, in virtue of which we judge that which involves a contradiction to be false, and that which is opposed or contradictory to the false to be true (sec. 44, 169).

32. And *that of sufficient reason*, by virtue of which we consider that we can find no true or existent fact, no true assertion, without there being a sufficient reason why it is thus and not otherwise, although most of the time these reasons cannot be known to us (sec. 44, 196).

33. There are also two kinds of *truths*, those of *reasoning* and those of *fact*. The truths of reasoning are necessary and their opposite is impossible; the truths of fact are contingent, and their opposite is possible. When a truth is necessary, its reason can be found by analysis, resolving it into simpler ideas and simpler truths until we reach the primitives (sec. 170, 174, 189, 280–82, 367, Abridgment, objection 3).

34. This is how the speculative *theorems* and practical *canons* of mathematicians are reduced by analysis to *definitions*, *axioms*, and *postulates*.

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

36. But there must also be a *sufficient reason* in *contingent truths*, or *truths of fact*, that is, in the series of things distributed throughout the universe of creatures, where the resolution into particular reasons could proceed into unlimited detail because of the immense variety of things in nature and because of the division of bodies to infinity. There is an infinity of past and present shapes and motions that 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, that enter into its final cause (sec. 36, 37, 44, 45, 49, 52, 121, 122, 337, 340, 344).

37. And since all this *detail* involves nothing but other prior or more detailed contingents, each of which needs a similar analysis in order to give its reason, we do not make progress in this way. It must be the case that the sufficient or ultimate reason is outside the sequence or *series* of this multiplicity of contingencies, however infinite it may be.

38. And that is why the ultimate reason of things must be in a necessary substance in which the diversity of changes is only eminent, as in its source. This is what we call *God* (*Theod*. sec. 7).

39. Since this substance is a sufficient reason for all this diversity, which is utterly interconnected, *there is only one God, and this God is sufficient*.

40. We can also judge that this supreme substance which is unique, universal, and necessary must be incapable of limits and must contain as much reality as is possible, insofar as there is nothing outside it which is independent of it, and insofar as it is a simple consequence of its possible existence.

41. From this it follows that God is absolutely perfect—*perfection* being nothing but the magnitude of positive reality considered as such, setting aside the limits or bounds in the things which have it. And here, where there are no limits, that is, in God, perfection is absolutely infinite (*Theod*. sec. 22; *Theod*. Preface, sec. 4.a).

42. It also follows that creatures derive their perfections from God's influence, but that they derive their imperfections from their own nature,