Discourse on Metaphysics

GOTTFRIED WILHELM LEIBNIZ
1646–1716

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Discours de métaphysique

Translated from the French with AI (Claude) and edited



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Discourse on Metaphysics · Gottfried Wilhelm Leibniz (1646–1716)

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INTRODUCTION

In the winter of 1686, with some days to spare, Gottfried Wilhelm Leibniz wrote what he called "a little discourse on metaphysics": thirty-seven short articles setting out, for the first time, almost the whole of his system. He sent only a summary of it to the theologian Antoine Arnauld, whose alarmed reply began a famous correspondence. The Discourse itself stayed among his papers and was first printed in 1846.

It begins with God, who does everything in the most perfect way, and moves to its central idea: each individual substance has a "complete concept" containing everything that will ever happen to it, so that God, seeing the notion of Julius Caesar, sees that he will cross the Rubicon. How that can leave Caesar free, how substances that never act on one another can agree, why physics needs final causes as well as mechanism, and how minds are citizens of a City of God are the questions the Discourse answers.

Many of the doctrines of the later Monadology appear here first, in a more relaxed and argumentative French. Leibniz's article numbers are kept as the references, and his own one-sentence summaries serve as the article titles.

§§1–7: God and the order of the world

God acts in the most perfect way; nothing, not even a miracle, falls outside the general order he has chosen.

ARTICLE 1: DE LA PERFECTION DIVINE, ET QUE DIEU FAIT TOUT DE LA MANIERE LA PLUS SOUHAITTABLE.

[1] The most widely accepted and most meaningful concept of God that we have is expressed well enough in these terms: that God is an absolutely perfect being. But people do not sufficiently consider what follows from it. To go further into the matter, it is worth noting that there are in nature several entirely different perfections, that God possesses them all together, and that each belongs to him in the highest degree. We must also know what perfection is. Here is a fairly reliable mark of it: forms or natures that are not capable of a highest degree are not perfections. Examples are the nature of number and the nature of figure.[1] For the greatest number of all (or the number of all numbers), like the greatest of all figures, implies a contradiction, whereas the greatest knowledge and omnipotence involve no impossibility. Consequently power and knowledge are perfections, and insofar as they belong to God, they have no limits. From this it follows that God, who possesses supreme and infinite wisdom, acts in the most perfect way, not only in the metaphysical sense but also morally speaking. From our point of view this can be put as follows: the more enlightened and informed we are about God's works, the more disposed we shall

1 Leibniz's "notion" is rendered "concept" throughout, except in articles 26–27, where he contrasts "idea" and "notion".

be to find them excellent, and entirely in keeping with everything we could have wished.

AGAINST ARBITRARY GOODNESS

The rules of goodness and beauty are not arbitrary effects of God's will but follow from his understanding.

[2] So I am very far from the view of those who maintain that there are no rules of goodness and perfection in the nature of things, or in the ideas God has of them. Nor do I accept their claim that God's works are good only for the formal reason that God made them. For if that were so, God would have had no need to look at his works afterwards and find them good, since he knew he was their author. Yet Holy Scripture testifies that he did look at them and find them good. Scripture seems to have used this way of speaking of God in human terms only to make us understand that the excellence of his works is recognized by looking at them in themselves, even when we do not reflect on that bare designation which relates them to their cause. This is all the truer because it is by considering the works that we can discover the workman. These works must therefore bear his mark within them. I confess that the opposite view seems to me extremely dangerous, and very close to that of the latest innovators. In their opinion the beauty of the universe, and the goodness we attribute to God's works, are nothing but chimeras of human beings who conceive God after their own fashion. Moreover, by saying that things are good not by any rule of goodness but by God's will alone, one destroys, it seems to me, all the love of God and all his glory, without realizing it. For why praise him for what he has done, if he would be equally praiseworthy for doing the exact opposite?[2] Where, then, will his justice and his wisdom be, if all that remains is a kind of despotic power? What becomes of them if will takes the place of reason, and if, by the tyrants' definition, whatever pleases the

2 Probably Spinoza and his followers, who called such notions human prejudices (*Ethics* I, Appendix).

most powerful is just by that very fact? Besides, it seems that every act of will presupposes some reason for willing, and that this reason is naturally prior to the will.[3] That is why I also find quite strange the way certain other philosophers put it. They say that the eternal truths of metaphysics and geometry, and consequently also the rules of goodness, justice and perfection, are merely effects of God's will. It seems to me, on the contrary, that they are consequences of his understanding, which no more depends on his will than his essence does.[4]

AGAINST THOSE WHO THINK GOD COULD HAVE DONE BETTER

God's works are of the utmost perfection, and acting without a reason would not be praiseworthy.

3 Nor can I approve the opinion of some moderns who boldly maintain that what God does is not of the utmost perfection, and that he could have acted much better. For it seems to me that the consequences of this view are entirely contrary to God's glory. Just as a lesser evil has the character of a good, so a lesser good has the character of an evil. And to act with less perfection than one could have is to act imperfectly. To show that an architect could have made his work better is to find fault with that work. This view also goes against Holy Scripture, where it assures us of the goodness of God's works. For imperfections descend to infinity. So whatever way God had made his work, it would always have been good in comparison with less perfect ones, if that were enough. But a thing hardly deserves praise when that is the only way in which it is praiseworthy. I also believe that countless passages will be found in Holy Scripture and in the holy Fathers that support my view, but hardly any will be found for the view of these moderns. In my opinion their view was unknown to all antiquity. It rests only on our too slight know-

3 An allusion to Thrasymachus in Plato's *Republic*, for whom justice is "the advantage of the stronger."

4 Chiefly René Descartes (1596–1650), who held that God freely created the eternal truths.

ledge of the general harmony of the universe and of the hidden reasons for God's conduct, and this leads us to judge rashly that many things could have been made better. Besides, these moderns insist on certain flimsy subtleties. For they imagine that nothing is so perfect that there is not something more perfect, and this is an error. They also think that in this way they safeguard God's freedom, as if the highest freedom were not to act perfectly in accordance with sovereign reason. For to believe that God does anything without having any reason for his will is a view hardly consistent with his glory, besides the fact that it seems impossible. Suppose, for example, that God chooses between A and B, and that he takes A without having any reason to prefer it to B. I say that this action of God's would at the very least not be praiseworthy. For all praise must be grounded in some reason, and here, *ex hypothesi*, there is none.[5] I hold, on the contrary, that God does nothing for which he does not deserve to be glorified.

LOVE OF GOD AND CONTENTMENT

Loving God means being satisfied with what he has done, while still acting for the good.

4 General knowledge of this great truth, that God always acts in the most perfect and most desirable way possible, is in my opinion the foundation of the love we owe to God above all things. For whoever loves seeks his satisfaction in the happiness or perfection of the object loved and of its actions. To want the same and not want the same is true friendship. And I think it is difficult to love God properly when one is not disposed to want what he wants, even if one had the power to change it.[6] Indeed, those who are not satisfied with what he does seem to me like discontented subjects, whose attitude is not very different from that of rebels. I hold, then, that according to these principles it is not enough, if we are to act in keeping with the love of God, to be

5 *Ex hypothesi*: Latin, "by hypothesis," that is, given what has been supposed.
6 Sallust, *The War with Catiline* 20.

patient because we are forced to be. We must be truly satisfied with everything that has happened to us according to his will. I mean this acquiescence with regard to the past. For as to the future, we must not be quietists, or wait ridiculously with folded arms for what God will do, according to the sophism the ancients called "the lazy argument." Instead we must act according to God's presumed will, as far as we can judge it. We must try with all our might to contribute to the general good, and particularly to the adornment and perfection of what concerns us, or of what is near us and, so to speak, within our reach. For the outcome may perhaps show that God did not want our good will to take effect at present. But it does not follow from this that he did not want us to do what we did.[7] On the contrary, as he is the best of all masters, he never asks for anything but the right intention. It is for him to know the proper hour and place for good designs to succeed.

SIMPLICITY OF WAYS AND RICHNESS OF EFFECTS

God acts like a perfect geometer or architect, balancing the simplest means against the richest effects.

[5] It is enough, then, to have this confidence in God: that he does everything for the best, and that nothing can harm those who love him. But to know in detail the reasons that may have moved him to choose this order of the universe, to tolerate sins, and to dispense his saving graces in a certain way is beyond the powers of a finite mind. This is especially so when that mind has not yet come to enjoy the vision of God. We can, however, make some general remarks about the conduct of providence in the government of things. We can say, then, that one who acts perfectly is like an excellent geometer, who knows how to find the best constructions for a problem. He is like a good architect, who uses his site and the funds set aside for the building in the

7 Quietism was a contemporary mystical movement urging passive surrender to God. The "lazy argument" (Greek *logos argos*) held that action is pointless if the outcome is fated.

most advantageous way, leaving nothing unsightly or lacking the beauty it is capable of. He is like a good head of household, who uses his property so that nothing is left uncultivated or barren. He is like a skilled engineer, who achieves his effect by the least complicated means that can be chosen. And he is like a learned author, who packs the most realities into the smallest volume he can. Now the most perfect of all beings, and those that take up the least volume, that is, those that least obstruct one another, are minds, whose perfections are the virtues. That is why there can be no doubt that the happiness of minds is God's principal aim, or that he puts it into effect as far as the general harmony permits. We shall say more about this shortly. As for the simplicity of God's ways, it properly concerns the means. Variety, richness or abundance, on the other hand, concerns the ends or effects. And the one must be balanced against the other, as the funds allotted for a building are balanced against the size and beauty required of it. It is true that nothing costs God anything. It costs him far less than it costs a philosopher who frames hypotheses for the construction of his imaginary world, since God has only to make decrees to bring a real world into being. But in matters of wisdom, decrees or hypotheses count as expenditure in proportion as they are more independent of one another. For reason requires us to avoid multiplying hypotheses or principles, rather as the simplest system is always preferred in astronomy.

NOTHING HAPPENS OUTSIDE ORDER

Even random dots lie on some geometrical line, so no event is absolutely irregular.

[6] The wills or actions of God are commonly divided into ordinary and extraordinary. But it is well to bear in mind that God does nothing outside of order. Thus what passes for extraordinary is so only with respect to some particular order established among creatures. For as regards the universal order, everything conforms to it. This is so true that nothing happens in the world

that is absolutely irregular, and we cannot even imagine anything of the kind. Suppose, for example, that someone puts a great many dots on paper completely at random, as do those who practice the ridiculous art of geomancy.[8] I say that it is possible to find a geometrical line whose concept is constant and uniform according to a certain rule, such that this line passes through all these points, and in the same order in which the hand marked them. Now suppose someone drew in one continuous stroke a line that was now straight, now circular, now of some other nature. It is possible to find a concept, rule or equation common to all the points of this line, by virtue of which these very changes must occur. And there is no face, for example, whose outline does not form part of a geometrical line and cannot be traced in a single stroke by a certain regular motion. But when a rule is very complex, what conforms to it passes for irregular. Thus we can say that in whatever way God had created the world, it would always have been regular and in a certain general order. But God chose the one that is most perfect, that is, the one that is at once the simplest in hypotheses and the richest in phenomena. A geometrical line might be like this if its construction were easy and its properties and effects were most admirable and very far-reaching. I use these comparisons to sketch some imperfect likeness of divine wisdom, and to say something that may at least raise our minds to conceive in some way what cannot be adequately expressed. But I do not claim to explain by this the great mystery on which the whole universe depends.

MIRACLES AND THE GENERAL ORDER

Miracles break subordinate maxims but not the general order; God wills some things and only permits others.

7 Now since nothing can happen that is not in order, we can say that miracles are just as much in order as natural operations. These operations are called natural because they conform to

8 Geomancy: divination by interpreting patterns of randomly made dots or marks.

certain subordinate maxims that we call the nature of things. For we can say that this nature is only a custom of God's, from which he can exempt himself for a reason stronger than the one that moved him to use these maxims. As for general or particular wills, depending on how one takes the matter, we can say that God does everything according to his most general will, which conforms to the most perfect order he has chosen. But we can also say that he has particular wills, which are exceptions to the subordinate maxims just mentioned. For the most general of God's laws, which rules the whole course of the universe, has no exceptions.[9] We can also say that God wills everything that is an object of his particular will. The objects of his general will are such things as the actions of other creatures, particularly rational ones, in which God wills to concur. As for these, we must make a distinction. If the action is good in itself, we can say that God wills it, and sometimes commands it, even when it does not happen;[10] but if it is bad in itself and becomes good only by accident, because the course of things, and particularly punishment and atonement, corrects its malice and repays the evil with interest, so that in the end there is more perfection in the whole sequence than if all this evil had not happened, then we must say that God permits it, and not that he wills it. This is so even though he concurs in it, because of the laws of nature he has established and because he knows how to draw a greater good from it.

9 "General" and "particular will" are the terms of Nicolas Malebranche (1638–1715). God normally acts by general laws, and by particular volitions only in miracles.

10 God's concurrence: the scholastic doctrine that God cooperates in every action of his creatures. Ordinary concurrence follows the laws of nature; extraordinary concurrence produces miracles.

§§8–16: Individual substance

Each substance has a complete concept containing everything that will ever happen to it, yet its actions stay contingent and free.

ARTICLE 8: POUR DISTINGUER LES ACTIONS DE DIEU ET DES CREATURES ON EXPLIQUE EN QUOY CONSISTE LA NOTION D'UNE SUBSTANCE INDIVIDUELLE.

8 It is rather difficult to distinguish God's actions from those of creatures. For some believe that God does everything, while others imagine that he only conserves the force he has given to creatures. What follows will show to what extent either can be said. Now since actions and passions properly belong to individual substances (actions belong to individual subjects), it would be necessary to explain what such a substance is. It is quite true that when several predicates are attributed to one and the same subject, and this subject is not attributed to any other, it is called an individual substance. But that is not enough, and such an explanation is only nominal.[1] We must therefore consider what it is to be truly attributed to a certain subject. Now it is established that every true predication has some foundation in the nature of things. When a proposition is not identical, that is, when the predicate is not explicitly included in the subject, it must be included in it virtually. This is what philosophers call *in-esse*, or "being in," when they say that the predicate *is in* the subject. Thus the subject term must always contain the predicate term, so that anyone who understood the concept of the sub-

1 The scholastic maxim *actiones sunt suppositorum*.

ject perfectly would also judge that the predicate belongs to it. This being so, we can say that the nature of an individual substance, or of a complete being, is to have a concept so complete that it suffices to contain all the predicates of the subject to which this concept is attributed, and to allow them to be deduced from it. An accident, by contrast, is a being whose concept does not include everything that can be attributed to the subject to which that concept is attributed. Thus the quality of being king, which belongs to Alexander the Great, taken in abstraction from the subject, is not determinate enough to pick out an individual. It does not include the other qualities of the same subject, nor everything that the concept of this prince contains. God, on the other hand, seeing Alexander's individual concept or haecceity, sees in it at the same time the foundation and reason of all the predicates that can truly be said of him, for example that he would defeat Darius and Porus. He even knows from it *a priori* (and not by experience) whether Alexander died a natural death or by poison, which we can know only from history.[2] So when we consider carefully the connection of things, we can say that there are at all times in Alexander's soul remnants of everything that has happened to him, and marks of everything that will happen to him. There are even traces of everything that happens in the universe, though it belongs to God alone to recognize them all.

EACH SUBSTANCE EXPRESSES THE WHOLE UNIVERSE

No two substances are alike, and each mirrors God and the universe from its own point of view.

[9] Several notable paradoxes follow from this. Among others, it is not true that two substances resemble each other entirely and differ only in number. What St. Thomas asserts on this point about angels or intelligences (that there every individual is a

2 Haecceity ("thisness"): Duns Scotus's term for what makes an individual this individual. Alexander defeated the Persian king Darius III in 331 BC and the Indian king Porus in 326 BC.

lowest species) is true of all substances, provided one takes the specific difference as geometers take it with regard to their figures. Likewise, a substance can begin only by creation and perish only by annihilation. One substance is not divided into two, nor is one made out of two. And so the number of substances naturally neither increases nor diminishes, though they are often transformed.[3] Moreover, every substance is like a whole world and like a mirror of God or of the whole universe, which each one expresses in its own way, much as one and the same city is represented differently according to the different positions of the person looking at it. Thus the universe is in a way multiplied as many times as there are substances, and God's glory is likewise redoubled by as many entirely different representations of his work. We can even say that every substance bears in some way the stamp of God's infinite wisdom and omnipotence, and imitates him as far as it is capable. For it expresses, though confusedly, everything that happens in the universe, past, present or future, and this bears some resemblance to an infinite perception or knowledge. And since all the other substances in turn express this one and accommodate themselves to it, we can say that it extends its power over all the others, in imitation of the Creator's omnipotence.

SUBSTANTIAL FORMS

Substantial forms are needed in metaphysics but should not be used to explain particular phenomena in physics.

10 It seems that the ancients had some knowledge of what we have just said. So too did many able men who were accustomed to deep meditation and taught theology and philosophy some centuries ago, some of them admirable for their holiness. That is what led them to introduce and maintain substantial forms, which are so disparaged today. But these thinkers are not so far from the truth, nor so ridiculous, as the common run of our new

3 Thomas Aquinas held that each angel, having no matter to individuate it, is a species of its own (*Summa Theologiae* I, q. 50, a. 4).

philosophers imagine. I agree that the consideration of these forms is of no use in the details of physics, and must not be used to explain particular phenomena.[4] And this is where our scholastics went wrong, and the physicians of past times following their example. They believed they were accounting for the properties of bodies by mentioning forms and qualities, without troubling to examine how these operate. It is as if one were content to say that a clock has a "horodictic" quality deriving from its form, without considering what all this consists in. That may indeed be enough for the person who buys the clock, provided he leaves its care to someone else.[5] But this failing and misuse of forms must not make us reject something whose knowledge is so necessary in metaphysics. Without it, I hold, one cannot properly know first principles, nor raise the mind sufficiently to the knowledge of incorporeal natures and of the wonders of God. However, a geometer has no need to trouble his mind with the famous labyrinth of the composition of the continuum. No moral philosopher, still less a jurist or statesman, needs to worry about the great difficulties involved in reconciling free will with God's providence. For the geometer can complete all his demonstrations, and the statesman can conclude all his deliberations, without entering into these discussions, which are nonetheless necessary and important in philosophy and theology.[6] In the same way, a physicist can account for experiments without any need of general considerations that belong to another sphere. He can use sometimes simpler experiments already performed, sometimes geometrical and mechanical demonstrations. And if he brings in God's concurrence, or some soul, archeus or other thing of that kind, he goes astray. He is just like someone who, in an important practical deliberation, insisted on launching into grand reasonings about the nature of

4 Substantial forms: in scholastic philosophy after Aristotle, the principle that makes each natural thing the kind of substance it is.

5 "Horodictic": mock-scholastic jargon from the Greek, meaning "hour-indicating."

6 The "labyrinth of the continuum": the old puzzle of how a continuous line or motion can be composed of indivisible parts.

destiny and of our freedom. And indeed people quite often make this mistake without realizing it, when they trouble their minds by considering fate. Sometimes they are even turned aside by it from some good resolution or some necessary care.[7]

IN DEFENSE OF THE SCHOLASTICS

Leibniz explains why he has returned, against his first inclination, to scholastic ideas.

[11] I know that I am putting forward a great paradox in claiming to rehabilitate the ancient philosophy in some way, and to recall from exile (*postliminio*) the all-but-banished substantial forms. But perhaps I shall not be condemned lightly once it is known that I have meditated a good deal on modern philosophy, and that I have given much time to experiments in physics and to demonstrations in geometry. It will also be known that I was long persuaded of the emptiness of these entities. I was finally obliged to take them up again in spite of myself, as if by force, after carrying out researches of my own. These made me recognize that our moderns do not do enough justice to St.[8] Thomas and to other great men of that time. They also made me recognize that there is far more solidity than is imagined in the views of the scholastic philosophers and theologians, provided those views are used appropriately and in their proper place. I am even persuaded that if some precise and reflective mind took the trouble to clarify and digest their thoughts in the manner of the analytic geometers, he would find in them a treasure of many very important and entirely demonstrable truths.

7 Archeus: in Paracelsus and van Helmont, a vital spirit supposed to direct the processes of living bodies.

8 *Postliminium*: in Roman law, the recovery of former rights by a captive returning home.

EXTENSION CANNOT MAKE UP BODY

Size, shape and motion are partly imaginary, so the substance of body needs something like a soul.

[12] But to take up again the thread of our reflections: I believe that anyone who meditates on the nature of substance, as I explained it above, will find that the whole nature of body does not consist solely in extension, that is, in size, shape and motion. He will find that we must necessarily recognize in body something that is related to souls, and that is commonly called substantial form. It changes nothing in the phenomena, however, any more than the souls of animals do, if they have souls. We can even demonstrate that the concept of size, shape and motion is not as distinct as is imagined. It includes something imaginary and relative to our perceptions, as do also (though to a much greater extent) color, heat and other similar qualities, of which one may doubt whether they are truly found in the nature of things outside us. That is why qualities of this kind cannot constitute any substance. And if there is no other principle of identity in bodies than what we have just mentioned, no body will ever last more than a moment. However, the souls and substantial forms of other bodies are very different from intelligent souls. Intelligent souls alone know their actions. Not only do they not perish naturally, but they always retain the basis of the knowledge of what they are. This alone makes them capable of punishment and reward, and makes them citizens of the republic of the universe, of which God is the monarch. It also follows that all other creatures must serve them. We shall speak of this more fully shortly.

CERTAIN BUT NOT NECESSARY

Caesar's crossing of the Rubicon is contained in his concept, yet it remains contingent and free.

[13] But before going further, we must try to resolve a great difficulty that may arise from the foundations we have laid above.

We have said that the concept of an individual substance includes once and for all everything that can ever happen to it. We have also said that by considering this concept we can see in it everything that can truly be stated of it, just as we can see in the nature of the circle all the properties that can be deduced from it. But it seems that this will destroy the difference between contingent and necessary truths. There will be no room left for human freedom, and an absolute fatality will reign over all our actions, as well as over all the other events in the world. To this I reply that we must distinguish between what is certain and what is necessary. Everyone agrees that future contingents are certain, since God foresees them. But it is not thereby admitted that they are necessary. But (someone will say) if some conclusion can be deduced infallibly from a definition or concept, it will be necessary. Now we maintain that everything that is to happen to a person is already virtually contained in his nature or concept, as the properties are in the definition of the circle. So the difficulty still stands. To resolve it soundly, I say that connection or consequence is of two kinds. One is absolutely necessary, and its contrary implies a contradiction. This kind of deduction holds for eternal truths, such as those of geometry. The other is necessary only *ex hypothesi* and, so to speak, by accident. It is contingent in itself, since its contrary implies no contradiction. And this connection is founded not merely on pure ideas and on God's simple understanding, but also on his free decrees and on the course of the universe. Let us take an example. Julius Caesar will become perpetual dictator and master of the republic, and will overthrow the freedom of the Romans. Since this is so, this action is contained in his concept. For we suppose that it is the nature of such a perfect concept of a subject to contain everything, so that the predicate is included in it—*ut possit inesse subjecto*, so that it can "be in" the subject. It might be said that it is not by virtue of this concept or idea that he is to commit this action, since it belongs to him only because God knows everything. But it will be insisted that his nature or form corresponds to this concept, and

that since God has imposed this role on him, it is henceforth necessary for him to fulfill it. I could answer by pointing to the case of future contingents. They as yet have nothing real except in God's understanding and will, and since God has given them this form there in advance, they will likewise have to correspond to it. But I prefer to resolve difficulties rather than excuse them by the example of other similar difficulties. And what I am about to say will serve to clarify the one as well as the other. It is now, then, that the distinction between connections must be applied. I say that what happens in accordance with these prior determinations is certain, but not necessary. If someone did the contrary, he would be doing nothing impossible in itself, even though it is impossible (*ex hypothesi*) that it should happen. Suppose some man were capable of carrying out the whole demonstration by which he could prove this connection between the subject, which is Caesar, and the predicate, which is his successful enterprise. He would in fact show that Caesar's future dictatorship has its foundation in his concept or nature. He would show that one sees there a reason why Caesar resolved to cross the Rubicon rather than stop at it, and why he won rather than lost the day at Pharsalus. And he would show that it was reasonable, and therefore certain, that this should happen. But he would not show that it is necessary in itself, nor that the contrary implies a contradiction.[9] In much the same way it is reasonable and certain that God will always do the best, even though what is less perfect implies no contradiction. For one would find that this demonstration of Caesar's predicate is not as absolute as those of numbers or of geometry. It presupposes the sequence of things that God freely chose. This sequence is founded on God's first free decree, which is always to do what is most perfect. It is also founded on the decree God made (following the first) with regard to human nature, which is that man will always do (though freely) what seems best. Now every truth founded on decrees of this kind is contingent, even though it is

9 Caesar crossed the Rubicon into Italy in 49 BC and defeated Pompey at Pharsalus in 48 BC.

certain. For these decrees do not change the possibility of things. As I have already said, although God certainly always chooses the best, this does not prevent what is less perfect from being and remaining possible in itself, even though it will not happen. For it is not its impossibility but its imperfection that causes it to be rejected. And nothing is necessary whose opposite is possible. We shall therefore be in a position to resolve difficulties of this kind, however great they may seem (and in fact they are no less pressing for all the others who have ever dealt with this subject). We need only bear in mind that all contingent propositions have reasons for being thus rather than otherwise. Or (what is the same thing) they have *a priori* proofs of their truth, which make them certain and show that the connection of subject and predicate in these propositions has its foundation in the nature of both; but they do not have demonstrations of necessity. For these reasons are founded only on the principle of contingency, or of the existence of things, that is, on what is or seems best among several equally possible things. Necessary truths, by contrast, are founded on the principle of contradiction and on the possibility or impossibility of essences themselves, without regard in this to the free will of God or of creatures.

HOW SUBSTANCES AGREE WITHOUT ACTING ON ONE ANOTHER

Each substance is a world apart, and God makes their perceptions correspond.

[14] Having understood to some extent what the nature of substances consists in, we must try to explain how some depend on others, and what their actions and passions are. Now it is, first, very evident that created substances depend on God. He conserves them, and indeed produces them continually by a kind of emanation, as we produce our thoughts. For God, so to speak, turns about on all sides and in all ways the general system of phenomena that he finds it good to produce in order to manifest his glory. He views all the faces of the world in all possible ways,

since no relation escapes his omniscience. The result of each view of the universe, as seen from a certain place, is a substance that expresses the universe in conformity with that view, if God finds it good to make his thought effective and produce this substance. And since God's view is always true, our perceptions are true too. It is our judgments that are our own doing and that deceive us.

EACH SUBSTANCE A WORLD APART

All our phenomena follow from our own being, yet the perceptions of all substances correspond.

Now we said above, and it follows from what we have just said, that each substance is like a world apart, independent of everything else except God. Thus all our phenomena, that is, everything that can ever happen to us, are only consequences of our own being. These phenomena keep a certain order conforming to our nature, or so to speak to the world within us. This order enables us to make observations that are useful for guiding our conduct and are borne out by the outcome of future phenomena, so that we can often judge the future from the past without being deceived. That would be enough for us to say that these phenomena are true, without troubling ourselves about whether they are outside us and whether others perceive them too. Yet it is very true that the perceptions or expressions of all substances correspond to one another. Each one, carefully following certain reasons or laws it has observed, meets up with another that does the same. It is like several people who have agreed to meet at some place on a fixed day, and who can actually do so if they wish. Now although all express the same phenomena, it does not follow that their expressions are perfectly alike. It is enough that they are proportional. In the same way several spectators believe they are seeing the same thing, and do in fact understand one another, though each sees and speaks according to the measure of his view. Now it is God alone who is the cause of this correspondence of their phenomena, and who

makes what is particular to one public to all. All individuals continually emanate from him, and he sees the universe not only as they see it but also entirely otherwise than all of them. Without him there would be no connection. We could therefore say in a way, and in a good sense, though one far from ordinary usage, that one particular substance never acts on another particular substance, and is not acted on by it either. This holds if we consider that what happens to each is only a consequence of its idea or complete concept alone. For this idea already contains all the predicates or events, and expresses the whole universe. Indeed, nothing can happen to us but thoughts and perceptions. All our future thoughts and perceptions are only consequences, though contingent ones, of our preceding thoughts and perceptions. So if I were capable of considering distinctly everything that happens to me or appears to me at this moment, I could see in it everything that will ever happen to me or appear to me. This would not fail to happen, and would happen to me just the same, even if everything outside me were destroyed, if only God and I remained. But we attribute what we perceive in a certain way to other things, as causes acting on us. So we must consider the basis of this judgment, and what is true in it.

WHAT ACTION BETWEEN SUBSTANCES MEANS

One substance acts on another when its expression grows more perfect as the other's diminishes.

15 But without entering into a long discussion, it is enough for now to note the following, in order to reconcile metaphysical language with practice. We attribute to ourselves more, and rightly so, the phenomena we express more perfectly, and we attribute to other substances what each expresses best. Thus a substance that is of infinite extent, insofar as it expresses everything, becomes limited by the more or less perfect manner of its expression. This, then, is how we can conceive that substances hinder or limit one another. Consequently we can say in this sense that they act on one another, and are obliged, so to

speak, to accommodate themselves to one another. For it can happen that a change which increases the expression of one diminishes that of another. Now the virtue of a particular substance is to express the glory of God well, and it is through this that it is less limited. Each thing, when it exercises its virtue or power, that is, when it acts, changes for the better and extends itself, insofar as it acts. So when a change occurs that affects several substances (as indeed every change touches them all), I think we can say that the one which thereby passes immediately to a greater degree of perfection, or has a more perfect expression, exercises its power and *acts*. The one that passes to a lesser degree shows its weakness and *is acted upon*. So too I hold that every action of a substance that has perception involves some *pleasure*, and every passion some *pain*, and *vice versa*. However, it may well happen that a present advantage is destroyed by a greater evil later on. Hence one can sin while acting, or exercising one's power, and finding pleasure in it.

GOD'S EXTRAORDINARY CONCURRENCE

Miracles are included in what our essence expresses but exceed the powers of our limited nature.

[16] It now remains only to explain how God can sometimes influence human beings or other substances by an extraordinary and miraculous concurrence. For it seems that nothing extraordinary or supernatural can happen to them, since everything that happens to them is only a consequence of their nature. But we must remember what we said above about miracles in the universe: they always conform to the universal law of the general order, even though they are above the subordinate maxims. And since every person or substance is like a little world that expresses the great one, we can likewise say that this extraordinary action of God on this substance is still miraculous. This is so even though it is included in the general order of the universe, insofar as that order is expressed by the essence or individual concept of this substance. That is why, if we include

in our nature everything that it expresses, nothing is supernatural to it, for it extends to everything—an effect always expressing its cause, and God being the true cause of substances. But what our nature expresses more perfectly belongs to it in a particular way, since that is what its power consists in, and it is limited, as I have just explained. So there are many things that surpass the powers of our nature, and even those of all limited natures. Consequently, to speak more clearly, I say that what is peculiar to miracles and to God's extraordinary concurrences is that they cannot be foreseen by the reasoning of any created mind, however enlightened. The reason is that a distinct grasp of the general order is beyond all such minds. Everything we call natural, by contrast, depends on less general maxims, which creatures can understand. So, for our words to be as blameless as our meaning, it would be good to tie certain ways of speaking to certain thoughts. We could call our essence whatever includes everything we express. And since it expresses our union with God himself, it has no limits, and nothing surpasses it. But what is limited in us could be called our nature or our power. In that respect, whatever surpasses the natures of all created substances is supernatural.

§§17–22: Force and final causes

Against Descartes on the quantity of motion, and why physics needs both efficient and final causes.

ARTICLE 17: EXEMPLE D'UNE MAXIME SUBALTERNE DU LOY DE NATURE, OÙ IL EST MONSTRÉ QUE DIEU CONSERVE TOUSJOURS REGULIEREMENT LA MÊME FORCE, MAIS NON PAS LA MÊME QUANTITÉ DE MOUVEMENT, CONTRE LES CARTESIENS ET PLUSIEURS AUTRES.

17 I have often mentioned subordinate maxims, or laws of nature, and it seems it would be good to give an example. Our new philosophers commonly use the famous rule that God always conserves the same quantity of motion in the world. It is indeed very plausible, and in the past I held it to be beyond doubt. But since then I have recognized where the mistake lies. Monsieur Descartes and many other able mathematicians believed that the quantity of motion—that is, the speed multiplied by the size of the moving body—coincides entirely with the motive force. Or, to put it geometrically, they believed that forces are in the compound ratio of the speeds and the bodies.[1] Now it is reasonable that the same force should always be conserved in the universe. Indeed, when we attend to the phenomena, we see clearly that mechanical perpetual motion does not occur. If it did, the force of a machine, which is always somewhat diminished by friction and must soon run down, would restore itself, and so would increase of its own accord without some new impulse from outside. We also observe that the force

1 Descartes's *Principles of Philosophy* (1644) holds that God conserves the same quantity of motion in the world.

of a body is diminished only in proportion as it gives some of it to contiguous bodies, or to its own parts insofar as they have a separate motion. So they believed that what can be said of force could also be said of the quantity of motion. But to show the difference between them, I *suppose* that a body falling from a certain height acquires the force to rise back up to it, if its direction carries it that way, unless it meets some obstacles. For example, a pendulum would rise back perfectly to the height from which it came down, if the resistance of the air and some other small obstacles did not diminish its acquired force a little. I *suppose* also that as much force is needed to raise a body A of one pound to the height CD of four toises as to raise a body B of four pounds to the height EF of one toise. All this is granted by our new philosophers.[2] It is therefore evident that body A, having fallen from the height CD, has acquired precisely as much force as body B fallen from the height EF. Body (B), having reached F and having there the force to rise back up to E (by the first supposition), consequently has the force to carry a body of four pounds —that is, its own body—to the height EF of one toise. Likewise body (A), having reached D and having there the force to rise back up to C, has the force to carry a body of one pound—that is, its own body—to the height CD of four toises. Therefore (by the second supposition) the force of these two bodies is equal. Let us now see whether the quantity of motion is also the same on both sides. But here we shall be surprised to find a very great difference. For Galileo has demonstrated that the speed acquired by the fall CD is double the speed acquired by the fall EF, although the height is four times as great.[3] Let us then multiply body A, which is as 1, by its speed, which is as 2: the product, or the quantity of motion, will be as 2. On the other side, let us multiply body B, which is as 4, by its speed, which is as 1: the product, or the quantity of motion, will be as 4. Therefore the quantity of motion of body (A) at point D is half the

2 The toise was a French unit of length of about 1.95 meters (six feet).
3 Galileo Galilei (1564–1642), who showed in *Two New Sciences* (1638) that the speed of a falling body grows as the square root of the height fallen.

quantity of motion of body (B) at point F, and yet their forces are equal. Therefore there is a great difference between quantity of motion and force, which is what was to be shown. We see from this that force must be measured by the quantity of the effect it can produce. It can be measured, for example, by the height to which a heavy body of a certain size and kind can be raised, which is very different from the speed that can be given to it. And to give it double the speed takes more than double the force. Nothing is simpler than this proof. Monsieur Descartes fell into error here only because he trusted his thoughts too much, even when they were not yet ripe enough. But I am surprised that his followers have not noticed this mistake since then. I fear they are beginning, little by little, to imitate some of the Peripatetics whom they mock. Like them, they are growing used to consulting their master's books rather than reason and nature.[4]

WHY FORCE POINTS TO METAPHYSICS

Motion alone is relative; force is more real and shows that body is more than extension.

18 This consideration of force, as distinct from quantity of motion, is quite important. It matters in physics and mechanics, for finding the true laws of nature and rules of motion, and even for correcting several errors of practice that have crept into the writings of some able mathematicians. But it also matters in metaphysics, for understanding the principles better. For motion, if we consider in it only what it strictly and formally contains—namely, a change of place—is not an entirely real thing. And when several bodies change their positions relative to one another, it is not possible, by considering these changes alone, to determine to which of them motion or rest should be attributed. I could show this geometrically, if I wished to stop over it now. But the force, or proximate cause of these changes, is something more real, and there is enough ground to attribute

4 Peripatetics: followers of Aristotle, here the scholastics of the universities.

it to one body rather than to another. And only by this means can we know to which body the motion belongs more. Now this force is something different from size, shape and motion. We can judge from this that not everything conceived in bodies consists solely in extension and its modifications, as our moderns persuade themselves. So we are also obliged to reinstate certain beings or forms that they have banished. And it becomes ever clearer that the general principles of corporeal nature, and of mechanics itself, are metaphysical rather than geometrical. This holds even though all the particular phenomena of nature can be explained mathematically or mechanically by those who understand them. These principles belong to certain indivisible forms or natures, as the causes of appearances, rather than to corporeal or extended mass. This reflection can reconcile the mechanical philosophy of the moderns with the caution of some intelligent and well-meaning people. They fear, with some reason, that we are straying too far from immaterial beings, to the detriment of piety.

FINAL CAUSES IN PHYSICS

Leibniz defends explaining nature by God's purposes against those who would banish final causes.

[19] As I do not like to think ill of people, I do not accuse our new philosophers who claim to banish final causes from physics. But I am nonetheless obliged to admit that the consequences of this view seem dangerous to me. They seem especially so when I join it to the view I refuted at the beginning of this discourse, which seems to tend toward removing final causes altogether—as if God proposed no end or good to himself in acting, or as if the good were not the object of his will. I hold, on the contrary, that this is precisely where we must look for the principle of all existences and of the laws of nature, because God always proposes to himself the best and most perfect. I readily admit that we are liable to deceive ourselves when we try to determine God's ends or counsels. But this happens only when we try to restrict them

to some particular design, believing that he had only one thing in view, whereas he has regard to everything at once. For instance, it is a great mistake to believe that God made the world only for us. Yet it is very true that he made it entirely for us. Nothing in the universe fails to concern us, and nothing fails to be adapted to the regard he has for us, according to the principles laid down above. So when we see some good effect or some perfection that happens in God's works or follows from them, we can say with confidence that God intended it. For he does nothing by chance, and he is not like us, who sometimes do good inadvertently. That is why we cannot go wrong here in the way that overzealous political analysts do, who imagine too much subtlety in the designs of princes, or commentators, who look for too much learning in their author. Far from it: we cannot attribute too many reflections to this infinite wisdom. There is no subject in which error is less to be feared, so long as we only affirm, and provided that we guard here against negative propositions that limit God's designs. All who see the admirable structure of animals find themselves led to recognize the wisdom of the author of things. I advise those who have any sense of piety, and even of true philosophy, to keep away from the phrases of certain so-called freethinkers. These people say that we see because we happen to have eyes, not because the eyes were made for seeing. When people seriously hold such views, which ascribe everything to the necessity of matter or to a kind of chance, it is hard for them to recognize an intelligent author of nature. (Both views must seem ridiculous to those who understand what we have explained above.)[5] For the effect must correspond to its cause, and indeed it is best known through knowledge of the cause. It is unreasonable to bring in a sovereign intelligence that orders things and then, instead of employing its wisdom, to use only the properties of matter to explain the phenomena. It is as if a historian had to account for a conquest a great prince had made by taking some important stronghold.

5 The argument that eyes were not made for seeing goes back to Lucretius, *On the Nature of Things* IV.

And suppose he said that it happened because the small bodies of gunpowder, released at the touch of a spark, escaped with a speed capable of propelling a hard, heavy body against the walls of the stronghold. Meanwhile, he would add, the branches of the small bodies that make up the copper of the cannon were interlaced well enough not to come apart under this speed. He would do this instead of showing how the conqueror's foresight led him to choose the right time and means, and how his power overcame every obstacle.

SOCRATES IN THE PHAEDO

Leibniz introduces his translation of Plato's passage against purely material explanations.

[20] This reminds me of a fine passage of Socrates in Plato's *Phaedo*. It agrees wonderfully with my views on this point, and seems to have been written expressly against our overly materialistic philosophers. This agreement made me want to translate it, although it is a little long. Perhaps this sample may prompt someone to share with us many other fine and solid thoughts found in the writings of this famous author.[6]

"One day," he says, "I heard someone reading from a book by Anaxagoras, which contained these words: that an intelligent being was the cause of all things, and that it had arranged and adorned them. This pleased me enormously. For I believed that if the world was the effect of an intelligence, everything would be made in the most perfect way possible. That is why I believed that anyone wanting to explain why things come into being, perish or persist should look for what would suit the perfection of each thing. Thus one would have to consider, in oneself or in anything else, only what would be best and most perfect.[7] For whoever knew the most perfect would easily judge from it what

6 Plato, *Phaedo* 97b–99c, which Leibniz abridges freely; Socrates is speaking in prison on the day of his execution.

7 Anaxagoras (c. 500–428 BC), Greek philosopher who taught that Mind (*nous*) orders all things.

was imperfect, because one and the same knowledge covers both.

Considering all this, I rejoiced at having found a master who could teach the reasons of things. He would teach, for example, whether the earth was round rather than flat, and why it was better for it to be so than otherwise.... Moreover, I expected that in saying whether or not the earth is at the center of the universe, he would explain to me why that was most fitting. I expected that he would tell me as much about the sun, the moon, the stars and their motions.... And finally, I expected that after showing what would suit each thing in particular, he would show me what would be best in general.

Full of this hope, I took up the books of Anaxagoras and went through them eagerly. But I found myself very far from what I had counted on. I was surprised to see that he made no use at all of the governing intelligence he had put forward. He no longer spoke of the adornment or perfection of things, and he brought in certain ethereal kinds of matter that were hardly plausible.

In this he acted like someone who says that Socrates does things with intelligence, and then, coming to explain in detail the causes of his actions, says the following. Socrates is sitting here because he has a body made of bones, flesh and sinews. The bones are solid, but they have gaps or joints. The sinews can be tightened and relaxed. That is why the body is flexible, and finally why I am sitting. Or it is as if, wishing to account for this present conversation, he appealed to the air, to the organs of voice and hearing, and similar things. Meanwhile he would be forgetting the true causes: namely, that the Athenians thought it better to condemn me than to acquit me, and that I, for my part, thought it better to stay sitting here than to run away. For upon my word, without that, these sinews and bones would long since be among the Boeotians and Megarians—if I had not judged it more just and more honorable to suffer the penalty my country wishes to impose on me than to live elsewhere as a vagabond

and an exile.[8] That is why it is unreasonable to call these bones and sinews and their movements causes.

It is true that whoever said I could not do all this without bones and sinews would be right. But it is one thing to be the true cause.... and another to be only a condition without which the cause could not be a cause.....

People who say only, for example, that the motion of the bodies around the earth holds it where it is, forget that divine power arranges everything in the most beautiful way. They do not understand that it is the good and the beautiful that join, form and maintain the world....” Thus far Socrates. What follows in Plato about ideas or forms is no less excellent, but it is somewhat more difficult.

LAWS OF MOTION SHOW GOD'S WISDOM

Geometry alone would give absurd laws of motion; God's decree to conserve force prevents them.

[21] Now, the wisdom of God has always been recognized in the details of the mechanical structure of particular bodies. So it must also have shown itself in the general economy of the world and in the constitution of the laws of nature. This is so true that we can observe the counsels of this wisdom in the laws of motion in general. Suppose there were nothing in bodies but extended mass, and nothing in motion but change of place. Suppose too that everything had to be, and could be, deduced from these definitions alone by geometrical necessity. Then it would follow, as I have shown elsewhere, that the smallest body, on meeting a larger one at rest, would give it the same speed it has itself, without losing any of its own. We would also have to admit many other such rules, entirely contrary to the formation of a system. But the decree of divine wisdom always to conserve the same force and the same total direction has provided against this. I even find that several effects of nature can be demon-

8 Boeotia and Megara were regions neighboring Athens, where Socrates could have taken refuge.

strated in two ways. One way is by considering the efficient cause; the other, separately, is by considering the final cause. We can use, for example, God's decree always to produce his effect by the easiest and most determinate ways. I have shown this elsewhere in giving the reasons for the rules of catoptrics and dioptrics, and I shall say more about it shortly.[9]

EFFICIENT AND FINAL CAUSES RECONCILED

Both mechanical and purposive explanations are valid, and final causes helped discover the law of refraction.

[22] It is good to make this remark in order to reconcile two groups: those who hope to explain mechanically the formation of an animal's first tissue and the whole machinery of its parts, and those who account for this same structure by final causes. Both are good; both can be useful, not only for admiring the skill of the great craftsman, but also for discovering something useful in physics and medicine. And the authors who follow these different routes should not abuse one another. For I see that those who devote themselves to explaining the beauty of divine anatomy mock the others. The others imagine that a motion of certain fluids, apparently fortuitous, could have produced such a beautiful variety of limbs, and the first group treats them as reckless and profane. The latter, in turn, treat the former as simple-minded and superstitious. They compare them to those ancients who took the natural philosophers for impious when they maintained that it is not Jupiter who thunders, but some matter found in the clouds. The best course would be to combine the two considerations. If I may use a homely comparison, I recognize and praise the skill of a craftsman not only by showing what designs he had in making the pieces of his machine. I also do so by explaining the tools he used to make each piece, especially when these tools are simple and ingeniously devised. And God is a skillful enough craftsman to produce a machine a

9 Catoptrics and dioptrics: the optics of reflection and of refraction. Leibniz had treated them in a 1682 paper on a single principle of optics.

thousand times more ingenious than that of our body, using only some rather simple fluids. These would be expressly formed so that only the ordinary laws of nature are needed to sort them out properly and produce so admirable an effect. But it is also true that this would not happen if God were not the author of nature. However, I find that the way of efficient causes is, on the other hand, rather difficult when one comes to details, though it is in fact deeper and in some way more immediate and *a priori*. And I believe that our philosophers are, for the most part, still very far from it. But the way of final causes is easier. It still often serves to divine important and useful truths that would take a very long time to find by that other, more physical route; anatomy can supply notable examples of this. Thus I hold that Snellius, who first discovered the rules of refraction, would have waited a long time to find them if he had tried first to find out how light is formed. But he apparently followed the method the ancients used for catoptrics, which in fact proceeds by final causes.[10] For they sought the easiest path for bringing a ray from a given point to another given point by reflection from a given plane, supposing that this is nature's design. In this way they found the equality of the angles of incidence and reflection, as can be seen in a short treatise by Heliodorus of Larissa and elsewhere. This, I believe, is what Monsieur Snellius, and after him Monsieur Fermat (though without knowing anything of Snellius), applied more ingeniously to refraction.[11] For when rays keep the same proportion of sines in the same media, which is also the proportion of the resistances of the media, this turns out to be the easiest way, or at least the most determinate, for passing from a given point in one medium to a given point in another. And the demonstration of this same theorem that Monsieur Descartes tried to give by way of efficient causes is far from being as good. At least there is reason to suspect that he

10 Willebrord Snellius (Snell, 1580–1626), Dutch mathematician who found the law of refraction around 1621.

11 Heliodorus of Larissa, late-ancient author of a short work on optics; Pierre de Fermat (1601–1665) derived the law of refraction from the principle that light takes the quickest path.

would never have found it that way, if he had learned nothing in Holland of Snellius's discovery.

§§23–29: Ideas and knowledge

Kinds of knowledge and definition, innate ideas and Plato's recollection, and how God alone acts on the mind.

ARTICLE 23: POUR REVENIR AUX SUBSTANCES IMMATERIELLES ON EXPLIQUE, COMMENT DIEU AGIT SUR L'ENTENDEMENT DES ESPRITS ET SI ON A TOUSJOURS L'IDÉE DE CE QU'ON PENSE.

23 I thought it appropriate to dwell a little on these considerations of final causes, of incorporeal natures, and of an intelligent cause in relation to bodies. I wanted to make known their use even in physics and mathematics. On the one hand, this cleanses mechanical philosophy of the profanity imputed to it; on the other, it raises the minds of our philosophers from purely material considerations to nobler meditations. Now it will be appropriate to return from bodies to immaterial natures, and particularly to minds, and to say something about the way God enlightens them and acts on them. We must not doubt that here too there are certain laws of nature, about which I could speak more fully elsewhere. For now it will be enough to touch on ideas: whether we see all things in God, and how God is our light. And it will be appropriate to note that the misuse of ideas gives rise to many errors.[1] For when we reason about something, we imagine that we have an idea of that thing. This is the foundation on which some philosophers, ancient and modern, have built a certain demonstration of God that is very imperfect.

1 "Seeing all things in God" is Malebranche's doctrine in *The Search after Truth* (1674–75).

For, they say, I must have an idea of God, or of a perfect being, since I think of him, and one cannot think without an idea. Now the idea of this being contains all perfections, and existence is one of them; therefore he exists. But we often think of impossible chimeras—for example, the highest degree of speed, the greatest number, or the meeting of the conchoid with its base or rule. So this reasoning is not enough.[2] It is in this sense, then, that we can say there are true and false ideas, according to whether the thing in question is possible or not. And only when we are sure of a thing's possibility can we boast of having an idea of it. Thus the argument above proves at least that God exists necessarily, if he is possible. It is indeed an excellent privilege of the divine nature to need only its possibility or essence in order to exist actually. And this is precisely what is called *ens a se*.[3]

KINDS OF KNOWLEDGE AND DEFINITION

Knowledge can be clear or obscure, distinct or confused, adequate, intuitive or suppositive; definitions differ likewise.

[24] To understand the nature of ideas better, we must touch on the variety of kinds of knowledge. When I can recognize one thing among others without being able to say what its differences or properties consist in, the knowledge is confused. It is in this way that we sometimes know clearly, without any doubt, whether a poem or a painting is well or badly made. We know it because there is a certain something, we cannot say what, that satisfies or offends us. But when I can explain the marks I have, the knowledge is called distinct. Such is the knowledge of an assayer, who tells true gold from false by means of certain tests or marks that make up the definition of gold. But distinct knowledge has degrees. For usually the notions that enter into the

2 The ontological argument of Anselm (1033–1109) and Descartes. The conchoid is a curve that approaches its base line ever more closely but never meets it.
3 *Ens a se*: "being from itself," a being that owes its existence to nothing outside itself.

definition would themselves need defining, and are known only confusedly. But when everything that enters into a definition or distinct knowledge is known distinctly, down to the primitive notions, I call this knowledge *adequate*. And when my mind grasps all the primitive ingredients of a notion at once and distinctly, it has *intuitive* knowledge of it. This is very rare, since most human knowledge is only confused, or else suppositive. It is good also to distinguish nominal definitions from real ones. I call it a *nominal definition* when one can still doubt whether the notion defined is possible. For example, suppose I say that an endless screw is a solid line whose parts are congruent, that is, can slide one along another. Someone who does not otherwise know what an endless screw is may doubt whether such a line is possible. Yet this is in fact a reciprocal property of the endless screw. For the other lines whose parts are congruent (which are only the circumference of the circle and the straight line) are plane, that is, can be drawn *in plano*.[4] This shows that any reciprocal property can serve for a nominal definition. But when the property makes known the possibility of the thing, it makes a real definition. As long as we have only a nominal definition, we cannot be sure of the consequences we draw from it. For if it concealed some contradiction or impossibility, we could draw opposite conclusions from it. That is why truths do not depend on names, and are not arbitrary, as some new philosophers have believed.[5] Moreover, there is still a great difference among the kinds of real definition. Sometimes possibility is proved only by experience, as in the definition of quicksilver. We know its possibility because we know that such a body, an extremely heavy yet quite volatile fluid, actually exists. In that case the definition is merely real and nothing more. But when the proof of possibility is made *a priori*, the definition is also *real* and *causal*, as when it contains the possible generation of the thing. And when it carries the analysis through to the end, down to the primitive

4 The endless screw is the helix; a reciprocal property belongs to its subject and to nothing else. *In plano*: in a plane.

5 Leibniz has chiefly Thomas Hobbes (1588–1679) in mind.

notions, without assuming anything that needs an *a priori* proof of its possibility, the definition is perfect, or *essential*.

WHEN WE CONTEMPLATE AN IDEA

Suppositive knowledge uses words without contemplating the idea, which may even be impossible.

25 Now it is evident that we have no idea of a notion when it is impossible. And when knowledge is only suppositive, even if we had the idea, we do not contemplate it. For such a notion is known only in the same way as notions that are secretly impossible; and if it is possible, this way of knowing is not how we learn that it is. For example, when I think of a thousand, or of a chiliagon, I often do so without contemplating the idea of it. It is as when I say that a thousand is ten times a hundred without troubling to think what 10 and 100 are, because I assume that I know it and do not think I need to stop now to conceive it.[6] Thus it may well happen, as indeed it quite often does, that I am mistaken about a notion that I assume or believe I understand. In truth it may be impossible, or at least incompatible with the others I join it to. And whether I am mistaken or not, this suppositive way of conceiving remains the same. So only when our knowledge is *clear* in confused notions, or *intuitive* in distinct ones, do we see the whole idea.

INNATE IDEAS AND PLATO'S RECOLLECTION

All ideas are always in the soul, as Plato saw, though without the soul's preexistence.

26 To understand properly what an idea is, we must forestall an equivocation. Many take the idea to be the form or differentiation of our thoughts. On that view, we have the idea in the mind only insofar as we are thinking of it. And each time we think of it anew, we have other ideas of the same thing, though similar to

6 A chiliagon is a polygon with a thousand sides, an example Descartes uses in his sixth *Meditation*.

the previous ones. But others, it seems, take the idea to be an immediate object of thought, or some permanent form that remains when we are not contemplating it. And indeed our soul always has in itself the quality of representing to itself any nature or form whatever, when the occasion arises to think of it.[7] And I believe that this quality of our soul, insofar as it expresses some nature, form or essence, is properly the idea of the thing. This idea is in us, and is always in us, whether we think of it or not. For our soul expresses God and the universe, and all essences as well as all existences. This agrees with my principles, for naturally nothing enters our mind from outside. It is a bad habit of ours to think as if our soul received certain messenger species, and as if it had doors and windows.[8] We have all these forms in the mind, and indeed have always had them, because the mind always expresses all its future thoughts. It already thinks confusedly of everything it will ever think distinctly. And nothing could be taught to us unless we already have in the mind its idea, which is like the matter from which that thought is formed. Plato considered this excellently when he put forward his doctrine of reminiscence. That doctrine has a great deal of solidity, provided that it is taken rightly and purged of the error of preexistence. We must not imagine that the soul must already have known and thought distinctly, at some earlier time, what it learns and thinks now.[9] And he confirmed his view by a fine experiment. He brings in a small boy and leads him, without his noticing, to very difficult truths of geometry concerning incommensurables. He teaches him nothing, but merely asks questions in order and to the point. This shows that our soul knows all this virtually, and needs only attention to know truths. Consequently it has at least the ideas on which

7 The first view is roughly that of the theologian Antoine Arnauld (1612–1694), the second that of Malebranche; the two had debated the nature of ideas in the early 1680s.

8 "Species": in scholastic theory, likenesses thought to travel from objects to the senses and the mind.

9 In the *Meno* and *Phaedo*, Plato presents learning as the recollection of what the soul knew before birth.

these truths depend. We can even say that it already possesses these truths, if we take them as the relations of ideas.[10]

THE BLANK TABLET AND THE SENSES

Aristotle's blank tablet is acceptable as ordinary speech, but many notions come from inner experience.

[27] Aristotle preferred to compare our soul to tablets that are still blank, with room for writing, and he maintained that there is nothing in our understanding that does not come from the senses. This agrees more with popular notions, as is Aristotle's way, whereas Plato goes deeper. Still, these sorts of doxologies or practicologies may pass in ordinary usage. It is much as we see that those who follow Copernicus still say that the sun rises and sets.[11] I even find that they can often be given a good sense, in which they contain nothing false. In the same way, I have already noted how one can truly say that particular substances act on one another. In this same sense one can also say that we receive knowledge from outside through the agency of the senses. The reason is that some external things contain or express more particularly the reasons that determine our soul to certain thoughts. But when it comes to the exactness of metaphysical truths, it is important to recognize the extent and independence of our soul, which goes infinitely further than ordinary people think. In the ordinary course of life, it is true, we attribute to it only what we perceive most manifestly and what belongs to us in a particular way, for there it serves no purpose to go further. It would be good, however, to choose terms proper to each of these senses, to avoid equivocation. Thus those expressions that are in our soul, whether we conceive them or not, can be called *ideas*. But those we conceive or form can be called *notions*, *conceptus*. But however we take it, it is always

10 Plato, *Meno* 82b–85b, where Socrates questions a slave boy about doubling a square.

11 Aristotle, *On the Soul* III.4. "Doxologies or practicologies" are Leibniz's coinages for ways of speaking that follow opinion (*doxa*) and practice.

false to say that all our notions come from the senses we call external. For the notion I have of myself and of my thoughts, and consequently the notions of being, substance, action, identity and many others, come from an inner experience.

GOD IS OUR LIGHT

God alone is the external object that acts directly on the soul, and we see all things through him.

[28] Now in the strictness of metaphysical truth, no external cause acts on us except God alone. He alone communicates himself to us immediately, by virtue of our continual dependence. From this it follows that there is no other external object that touches our soul and immediately excites our perception. So too we have in our soul the ideas of all things only by virtue of God's continual action on us. That is, every effect expresses its cause, and so the essence of our soul is a certain expression or imitation or image of the divine essence, thought and will, and of all the ideas contained in them. We can therefore say that God alone is our immediate object outside us, and that we see all things through him. For example, when we see the sun and the stars, it is God who has given us their ideas and who conserves them in us. It is he who determines us actually to think of them, by his ordinary concurrence, at the time when our senses are disposed in a certain way, according to the laws he has established. God is the sun and the light of souls, "the light that enlightens every man who comes into this world." And it is not only today that people have held this view.[12] After Holy Scripture and the Church Fathers, who have always sided with Plato rather than Aristotle, I remember noticing long ago that many in the time of the scholastics believed that God is the light of the soul. In their way of speaking, he is the "active intellect of the rational soul" (*intellectus agens animae rationalis*). The Averroists gave this a bad sense. But others took it in a manner worthy of God and capable of raising the soul to the knowledge of its good. Among them, I

12 John 1:9, quoted in Latin from the Vulgate.

believe, was William of Saint-Amour, along with many mystical theologians.[13]

WE THINK BY OUR OWN IDEAS

Against Malebranche, our ideas are in our own soul, not only in God.

29 Yet I do not share the view of certain able philosophers who seem to maintain that our very ideas are in God, and not in us at all. In my opinion, this comes from their not yet having sufficiently considered what we have just explained here about substances. Nor have they considered the full scope and independence of our soul, which means that it contains everything that happens to it, and that it expresses God, and with him all possible and actual beings, as an effect expresses its cause. Besides, it is inconceivable that I should think by means of someone else's ideas.[14] When the soul thinks of something, it must indeed be actually affected in a certain way. And there must be in it beforehand not only the passive power of being so affected, which is already entirely determined, but also an active power. By virtue of this active power there have always been in its nature marks of the future production of this thought, and dispositions to produce it in due time. And all this already involves the idea contained in this thought.

13 The Averroists, followers of Averroes (Ibn Rushd, 1126–1198), held that a single active intellect is shared by all human beings. William of Saint-Amour (c. 1200–1272) was a Paris theologian.
14 Chiefly Malebranche.

§§30–37: Freedom, grace and the City of God

Judas and the problem of sin, grace and election, soul and body, immortality, and God as monarch of the republic of spirits.

ARTICLE 30: COMMENT DIEU INCLINE NOSTRE AME SANS LA NECESSITER; QU'ON N'A POINT DE DROIT DE SE PLAINDRE; QU'IL NE FAUT PAS DEMANDER POURQUOY JUDAS PECHE, PUISQUE CETTE ACTION LIBRE EST COMPRISE DANS SA NOTION, MAIS SEULEMENT POURQUOY JUDAS LE PECHEUR EST ADMIS À L'EXISTENCE PREFERABLEMENT À QUELQUES AUTRES PERSONNES POSSIBLES. DE L'IMPERFECTION OU L'IMITATION ORIGINALE AVANT LE PECHÉ, ET DES DEGRÉS DE LA GRACE.

30 As for God's action on the human will, there are a great many rather difficult considerations, which it would take too long to pursue here. Nevertheless, here is what can be said in broad terms. In ordinarily concurring in our actions, God only follows the laws he has established. That is, he continually preserves and produces our being, so that thoughts come to us spontaneously or freely in the order that the concept of our individual substance carries with it, in which they could be foreseen from all eternity. Moreover, God has decreed that the will should always tend toward the apparent good, expressing or imitating God's will in certain particular respects, with regard to which this apparent good always has something genuine in it. By virtue of this decree he determines our will to choose what seems best, without, however, necessitating it. For, absolutely speak-

ing, our will is in a state of indifference, insofar as indifference is opposed to necessity. It has the power to do otherwise, or even to suspend its action altogether, since both alternatives are and remain possible. It is therefore up to the soul to guard against being taken by surprise by appearances, through a firm will to reflect, and to neither act nor judge in certain situations except after deliberating well and maturely. It is true, however, and it is even assured from all eternity, that a certain soul will not use this power in a given situation. But whose fault is that? And can it complain of anyone but itself? For all these complaints after the fact are unjust, if they would have been unjust before the fact. Now, a little before sinning, would this soul be right to complain of God, as if he were determining it to sin? Since God's determinations in these matters are things that cannot be foreseen, how does the soul know that it is determined to sin, unless it is already actually sinning? It is only a matter of not willing it, and God could not propose an easier or a fairer condition. So too, all judges, without looking for the reasons that disposed a man to have an evil will, confine themselves to considering how evil that will is. But perhaps it is assured from all eternity that I will sin? Answer that yourself: perhaps not. And without dwelling on what you cannot know, and what can give you no light, act according to your duty, which you do know.

WHY JUDAS EXISTS

The only real question is why God chose to admit Judas the sinner to existence.

But someone else will say: why is it that this man will certainly commit this sin? The answer is easy: otherwise he would not be this man. For God sees from all time that there will be a certain Judas, whose concept or idea, which God has of him, contains this future free action. So there remains only this question: why does such a Judas, the traitor, who is merely possible in God's idea, actually exist? But to this question no answer is to be expected here below, except that in general we must say this.

Since God saw fit that he should exist, despite the sin he foresaw, this evil must be repaid with interest in the universe; God will draw a greater good from it; and it will turn out, in sum, that this sequence of things, in which the existence of this sinner is included, is the most perfect among all the other possible ways. But to explain in every case the admirable economy of this choice is not possible while we are wayfarers; it is enough to know it without understanding it. And here it is time to acknowledge *altitudinem divitiarum*, the depth and the abyss of divine wisdom, without seeking a detailed account that involves infinitely many considerations. Yet we can clearly see that God is not the cause of evil. For not only did original sin take hold of the soul after men lost their innocence, but even before that there was an original limitation or imperfection, natural to all creatures, which makes them liable to sin, or capable of falling short. So there is no more difficulty with regard to the supralapsarians than with regard to the others. And this, in my opinion, is how we must understand the view of St.[1] Augustine and other authors that the root of evil lies in nothingness, that is, in the privation or limitation of creatures, which God graciously remedies by the degree of perfection he is pleased to give. This grace of God, whether ordinary or extraordinary, has its degrees and its measures. It is always efficacious in itself for producing a certain proportionate effect. Moreover, it is always sufficient not only to keep us from sin, but even to bring about salvation, provided that man joins in it with what comes from him. But it is not always sufficient to overcome man's inclinations, for otherwise nothing further would be required. That is reserved solely for absolutely efficacious grace, which is always victorious, whether it is so by itself or through the congruity of circumstances.

1 *Altitudinem divitiarum*: Romans 11:33, "O the depth of the riches…". Supralapsarians were Calvinists who held that God's decree of election and reprobation logically precedes his decree to permit the Fall.

ELECTION AND GRACE

Foreseen faith and absolute decrees fail to explain election; everything comes down to God's choice of possible persons.

31 Finally, God's graces are wholly pure graces, to which creatures have no claim. Yet, just as it is not enough, in accounting for the choice God makes in dispensing these graces, to appeal to his absolute or conditional foreknowledge of men's future actions, so too we must not imagine absolute decrees that have no reasonable motive. As for foreseen faith or good works, it is quite true that God has elected only those whose faith and charity he foresaw, those whom he foreknew he would grant faith to. But the same question comes back: why will God give the grace of faith or of good works to some rather than to others? Then there is the knowledge of God that is the foresight, not of faith and good acts themselves, but of their material and predisposition, or of what man would contribute to them on his side. For it is true that there is diversity on the side of men wherever there is diversity on the side of grace. And indeed, although man needs to be stirred to the good and converted, he must also act in it afterwards. With regard to this knowledge, it seems to many that one could say the following. God, seeing what man would do without grace or extraordinary assistance, or at least what there will be on his side if grace is left out of account, could resolve to give grace to those whose natural dispositions were the best, or at least the least imperfect or the least bad.[2] But even if that were so, one can say that these natural dispositions, insofar as they are good, are themselves the effect of a grace, though an ordinary one, since God has favored some more than others. And since he knows full well that these natural advantages he gives will serve as the motive for grace or extraordinary assistance, according to this doctrine, is it not

2 The "middle knowledge" of the heading, attributed to God by the Jesuit Luis de Molina (1535–1600): knowledge of what free creatures would do in any given circumstances.

true that in the end the whole thing comes down entirely to his mercy? I therefore believe (since we do not know how much or in what way God takes natural dispositions into account in dispensing grace) that the most exact and the safest course is to say the following, in keeping with our principles and as I have already remarked. Among possible beings there must be the person of Peter or of John, whose concept or idea contains this whole sequence of ordinary and extraordinary graces, and all the rest of these events with their circumstances; and it pleased God to choose this person from among an infinity of other equally possible persons, to exist actually. After which it seems that there is nothing more to ask, and that all the difficulties vanish. For as to that single great question, why it pleased God to choose this person from among so many other possible persons, one would have to be very unreasonable not to be content with the general reasons we have given, whose detail is beyond us. So, instead of appealing to an absolute decree, which, being without reason, is unreasonable, or to reasons that never finish resolving the difficulty and need further reasons, the best course will be to say, in agreement with St. Paul, that God has observed in this certain great reasons of wisdom or of congruity. These reasons are unknown to mortals and founded on the general order, whose aim is the greatest perfection of the universe. To this come back the motives of God's glory and of the manifestation of his justice as well as of his mercy, and in general of his perfections; and, finally, that immense depth of riches which so ravished the soul of the same St. Paul.

USE OF THESE PRINCIPLES FOR RELIGION

The principles support piety: God alone acts on the soul, which is free and immortal.

[32] For the rest, it seems that the thoughts we have just explained are far from harmful. This is particularly true of the great principle of the perfection of God's operations, and of the principle that the concept of a substance contains all its events with all

their circumstances. They serve to confirm religion, to dispel very great difficulties, to inflame souls with a divine love, and to raise minds to the knowledge of incorporeal substances, far better than the hypotheses seen up to now. For we see very clearly that all other substances depend on God as thoughts emanate from our substance; that God is all in all; and that he is intimately united to all creatures, though in proportion to their perfection. We see that it is he alone who determines them from outside by his influence. And if to act is to determine immediately, we can say in this sense, in the language of metaphysics, that God alone operates on me, and he alone can do me good or harm. Other substances contribute only to the reason for these determinations, because God, having regard to them all, distributes his bounty and obliges them to accommodate themselves to one another. So too, God alone brings about the connection or communication of substances. It is through him that the phenomena of one meet and agree with those of others, and consequently that there is reality in our perceptions. But in practice we attribute action to particular reasons, in the sense I explained above, because it is not necessary always to mention the universal cause in particular cases. We also see that every substance has a perfect spontaneity (which becomes freedom in intelligent substances), that everything that happens to it is a consequence of its idea or of its being, and that nothing determines it except God alone. And that is why a person of very lofty mind, whose holiness is revered, used to say that the soul should often think as if there were nothing in the world but God and itself.[3] Now nothing makes immortality more forcefully understood than this independence and this scope of the soul, which shelters it absolutely from all external things, since it alone makes up its whole world and is sufficient to itself together with God. It is as impossible for it to perish except by annihilation as it is impossible for the world (of which it is a living, perpetual expression) to destroy itself. Nor is it possible for the changes in this extended mass that is called our body to do

3 Leibniz elsewhere names Teresa of Ávila as the source of this saying.

anything to the soul, or for the dissolution of this body to destroy what is indivisible.

SOUL AND BODY

Soul and body agree because each soul's perceptions arise from its own nature, corresponding to its body.

33 We also see here the explanation of that great mystery, the union of soul and body: that is, how it comes about that the passions and actions of the one are accompanied by the actions and passions, or rather by the corresponding phenomena, of the other. For there is no way to conceive that the one has an influence on the other. And it is not reasonable simply to appeal to the extraordinary operation of the universal cause in an ordinary and particular matter. But here is the true reason. We have said that everything that happens to the soul, and to each substance, is a consequence of its concept. Therefore the very idea or essence of the soul entails that all its appearances or perceptions must arise in it spontaneously (*sponte*) from its own nature. And they arise precisely in such a way that of themselves they correspond to what happens in the whole universe, but more particularly and more perfectly to what happens in the body assigned to it. For it is in a certain way, and for a time, according to the relation of other bodies to its own, that the soul expresses the state of the universe. This also shows how our body belongs to us without, however, being attached to our essence. And I believe that people who know how to meditate will judge our principles favorably for this very reason: they will be able to see easily what the connection between soul and body consists in, a connection that seems inexplicable in any other way. We also see that the perceptions of our senses, even when they are clear, must necessarily contain some confused sensation. For since all the bodies of the universe are in sympathy, ours receives the impression of all the others; and although our senses relate to everything, it is not possible for our soul to attend to everything in particular. That is why our confused sen-

sations are the result of a variety of perceptions that is entirely infinite. It is rather like the confused murmur heard by those who approach the seashore, which comes from the accumulation of the reverberations of countless waves. Now, suppose that among several perceptions (which do not combine to make a single one) none stands out above the others, and that they make roughly equally strong impressions, or are equally capable of determining the soul's attention. Then the soul can perceive them only confusedly.

MINDS AND MEMORY

Animal souls never perish, but only minds keep the memory of themselves that moral immortality requires.

[34] Supposing that bodies that are a *unum per se*, such as man, are substances and have substantial forms, and that beasts have souls, we are obliged to admit that these souls and substantial forms cannot perish entirely, any more than atoms or the ultimate parts of matter can in the view of other philosophers. For no substance perishes, though it may become quite different. They also express the whole universe, though more imperfectly than minds do. But the chief difference is that they do not know what they are, nor what they do. Consequently, being unable to reflect, they cannot discover necessary and universal truths.[4] It is also for lack of reflection on themselves that they have no moral quality. Hence, as they pass through a thousand transformations, much as we see a caterpillar change into a butterfly, for morality or practice it is just as if they were said to perish. And one can even say so physically, as we say that bodies perish by their corruption. But the intelligent soul, knowing what it is and being able to say this *I*, which says a great deal, not only remains and subsists metaphysically, far more than the others, but also remains the same morally and plays the same part. For it is memory, or the knowledge of this *I*, that makes it capable of punishment and reward. So too, the immortality demanded in

4 Scholastic term: a unity in itself, as opposed to a mere aggregate.

morality and in religion does not consist in that perpetual subsistence alone which belongs to all substances, for without the memory of what one has been it would have nothing desirable about it. Suppose some private individual were suddenly to become king of China, but on condition of forgetting what he had been, as if he had just been born anew. Is that not the same, in practice, or as to the effects one can perceive, as if he were to be annihilated and a king of China were to be created in his place at the same instant? This is something that the individual has no reason to desire.

THE EXCELLENCE OF MINDS

Minds express God rather than the world and matter to God more than all other creatures.

[35] But to show by natural reasons that God will always preserve not only our substance but also our person, that is, the memory and knowledge of what we are (though distinct knowledge of it is sometimes suspended in sleep and in fainting fits), we must join morality to metaphysics. That is, we must consider God not only as the principle and cause of all substances and of all beings, but also as the head of all persons or intelligent substances, and as the absolute monarch of the most perfect city or republic, such as that of the universe, composed of all minds together. For God himself is as much the most accomplished of all minds as he is the greatest of all beings. For assuredly minds are the most perfect substances, and those that best express the divinity. And since the whole nature, end, power and function of substances is simply to express God and the universe, as has been sufficiently explained, there is no room to doubt the following. Substances that express it with knowledge of what they are doing, and that are capable of knowing great truths about God and the universe, express it incomparably better than those natures that are either brute and incapable of knowing truths, or wholly devoid of sensation and knowledge. And the difference between intelligent substances and those that are not is as

great as the difference between the mirror and the one who sees. And since God himself is the greatest and wisest of minds, it is easy to judge that the beings with whom he can, so to speak, enter into conversation and even into society, by communicating his thoughts and his wishes to them in a particular way, and in such a way that they can know and love their benefactor, must concern him infinitely more than the rest of things, which can count only as the instruments of minds. Just so, we see that all wise people set infinitely more store by a human being than by any other thing, however precious. And it seems that the greatest satisfaction a soul can have, when it is otherwise content, is to see itself loved by others. With regard to God, however, there is this difference: his glory and our worship can add nothing to his satisfaction. For creatures' knowledge is only a consequence of his sovereign and perfect happiness, far from contributing to it or being in part its cause. Nevertheless, what is good and reasonable in finite minds is found eminently in him. And just as we would praise a king who preferred to preserve the life of a man rather than that of the most precious and rarest of his animals, we should not doubt that the most enlightened and most just of all monarchs is of the same mind.

THE CITY OF GOD

God is monarch of the republic of minds, and its happiness is his chief aim.

[36] Indeed, minds are the most perfectible substances, and their perfections have this peculiarity, that they hinder one another least, or rather that they help one another, for only the most virtuous can be the most perfect friends. From this it clearly follows that God, who always aims at the greatest perfection in general, will take the most care of minds. He will give them, not only in general but even to each one in particular, as much perfection as universal harmony can allow. We can even say that God, insofar as he is a mind, is the origin of existences. Otherwise, if he lacked the will to choose the best, there would be no

reason for one possible to exist rather than the others. Thus God's quality of being himself a mind comes before all the other considerations he may have with regard to creatures. Minds alone are made in his image, and are as it were of his lineage, or like children of the house, since they alone can serve him freely and act with knowledge in imitation of the divine nature. A single mind is worth a whole world, since it not only expresses the world but also knows it, and governs itself in it in God's manner. So it seems that, although every substance expresses the whole universe, other substances nevertheless express the world rather than God, whereas minds express God rather than the world. And this so noble nature of minds, which brings them as close to the divinity as is possible for mere creatures, means that God draws infinitely more glory from them than from the rest of beings; or rather, other beings only give minds the material for glorifying him. That is why this moral quality of God, which makes him the lord or monarch of minds, concerns him, so to speak, personally, in an altogether singular way. It is in this that he makes himself human, that he consents to anthropologies, and that he enters into society with us, as a prince with his subjects. And this consideration is so dear to him that the happy and flourishing state of his empire, which consists in the greatest possible happiness of its inhabitants, becomes the highest of his laws. For happiness is to persons what perfection is to beings. And if the first principle of the existence of the physical world is the decree to give it as much perfection as possible, the first aim of the moral world, or of the City of God, which is the noblest part of the universe, must be to spread in it as much happiness as possible.[5] We must therefore not doubt that God has ordered everything so that minds not only can live forever, which cannot fail to happen, but also always keep their moral quality, so that his city loses no person, just as the world loses no substance. Consequently they will always know what they are. Otherwise they would be susceptible neither of reward nor of punishment, which is nonetheless of the essence of a

5 "Anthropologies": Leibniz's term for speaking of God in human terms.

republic, and above all of the most perfect one, where nothing can be neglected. Finally, since God is at once the most just and the kindest of monarchs, and asks only for good will, provided it is sincere and serious, his subjects could not wish for a better condition. And to make them perfectly happy, he wishes only that they love him.

WHAT JESUS CHRIST REVEALED

Christ made known the laws of the kingdom of heaven and the happiness God prepares for those who love him.

37 The ancient philosophers knew very little of these important truths. Jesus Christ alone expressed them divinely well, and in a manner so clear and so familiar that even the most untutored minds grasped them. So too, his gospel entirely changed the face of human affairs. He gave us knowledge of the kingdom of heaven, or of that perfect republic of minds which deserves the title of City of God, whose admirable laws he revealed to us. He alone showed how much God loves us, and with what exactness he has provided for everything that concerns us: that, caring for the sparrows, he will not neglect the rational creatures who are infinitely dearer to him; that all the hairs of our head are numbered; that heaven and earth will pass away sooner than the word of God and what belongs to the economy of our salvation will be changed;[6] that God has more regard for the least of intelligent souls than for the whole machine of the world; that we must not fear those who can destroy bodies but cannot harm souls, since God alone can make them happy or unhappy; and that the souls of the just are in his hand, sheltered from all the upheavals of the universe, since nothing can act on them but God alone; that none of our actions is forgotten; that everything is taken into account, even idle words, even a spoonful of water well used; finally, that everything must turn out for the greatest good of the good; that the just will be like suns; and that neither

6 Allusions to Matthew 10:29–30 and Matthew 24:35.

our senses nor our mind has ever tasted anything approaching the happiness that God prepares for those who love him.[7]

7 Allusions to Matthew 10:28, Wisdom 3:1, Matthew 12:36, Mark 9:41, Romans 8:28, Matthew 13:43 and 1 Corinthians 2:9.