
"DISCOURSE ON METAPHYSICS"

1686

The first mature synthesis of Leibniz's philosophical opinions is an essay without title which is described in a letter to the Landgrave Ernest of Hesse-Rheinfels on February 1/11, 1686.

Finding myself recently at a place with nothing to do for a few days, I wrote a little discourse on metaphysics, on which I should like to have the opinion of Mr. Arnauld. For I have treated the questions of grace, the co-operation of God with creatures, the nature of miracles, the cause of sin, the origin of evil, the immortality of the soul, ideas, etc., in a way which seems to provide new openings proper to clearing up the greatest difficulties [G., II, 11].

So far as is known, however, the work itself was never sent to Arnauld, but only the 37 propositions summarizing its conclusions, which Leibniz asked the Landgrave to forward to him. Though it has been esteemed very highly as a statement of Leibniz's mature philosophy, he himself considered it inadequate on the nature and kinds of substances, on the interpretation of body, and on the various degrees of perception. In contrast to his later philosophical summaries (Nos. 66 and 67), its emphasis is predominantly theological beginning with the argument for God rather than with the argument for individual substances, and it may have been a study for the preface to the Catholic Demonstrations.

Gerhardt's text has been corrected with the comparatively collated text of Schmalenbach (Sch. I, 1-50) based on the critical edition by Lestienne. Only the more significant variations found in earlier drafts of the essay, of which G.'s text is the third, are found in the notes.

[G., IV, 427-63]

1. *On the divine perfection, and that God does all in the most desirable way.* The most widely accepted and meaningful concept which we have of God is very well expressed in the phrase that he is an absolutely perfect being; yet the consequences of this definition have not been adequately considered. To penetrate more deeply into its meaning, it is convenient to notice that there are several entirely different perfections in nature, that God possesses them all together, and that each one belongs to him in a supreme degree. We must also know what is meant by perfection. A fairly sure test of it is this one: those forms or natures which are incapable of a highest degree are not perfections; for example, the nature of number or figure. For the greatest number of all, or the number of all numbers, and the greatest of all figures are concepts which imply contradiction, but the greatest knowledge and omnipotence involve no impossibility. Therefore power and knowledge are perfections and insofar as they belong to God, have no limits. Hence it follows that God, who possesses supreme and infinite wisdom, acts in the most perfect way and does this not only in a metaphysical but also in a moral sense. With respect to ourselves we can also express this as follows: the

more enlightened and informed we are about the works of God, the more we shall be inclined to find them excellent and in entire conformity with everything which might have been desired.

2. *Against those who claim that there is no goodness in the works of God; or that the rules of goodness and beauty are arbitrary.* Thus I am far from holding to the opinion of those who maintain that there are no rules of goodness and perfection in the nature of things or in the ideas which God has of them and who say that the works of God are good only for the formal reason that God has made them. For if this were so, God, who knows that he is the author of things, would have had no reason to regard them afterward and find them good, as is reported in the Holy Scriptures, which seem to have used this anthropological conception only to make us understand that the excellence of God's works may be recognized by considering them in themselves, even without reflecting upon this empty designation which relates them to their cause. This is all the more true, since it is through a consideration of his works that we can discover the craftsman. Thus his works must carry his mark in themselves. I confess that the contrary opinion seems to me extremely dangerous and to come very near to that of the latest innovators¹ whose opinion it is that the beauty of the universe and the goodness which we ascribe to the works of God are nothing but the chimeras of men who think of him in terms of themselves. Then, too, when we say that things are not good by any rule of excellence but solely by the will of God, we unknowingly destroy, I think, all the love of God and all his glory. For why praise him for what he has done if he would be equally praiseworthy in doing exactly the opposite? Where will his justice and wisdom be found if nothing is left but a certain despotic power, if will takes the place of reason, and if, according to the definition of tyrants, that which is pleasing to the most powerful is by that very fact just? Besides it seems that every act of will implies some reason for willing and that this reason naturally precedes the act of will itself. This is why I find entirely strange, also, the expression of certain other philosophers who say that the eternal truths of metaphysics and geometry, and consequently also the rules of goodness, justice, and perfection, are merely the effects of the will of God; while it seems to me that they are rather the consequences of his understanding, which certainly does not depend upon his will any more than does his essence.

3. *Against those who believe that God might have made things better.* Nor am I able to approve the opinion of certain moderns who maintain boldly that what God has done is not supremely perfect but that he could have done much better. For it seems to me that the consequences of this opinion are wholly contrary to the glory of God. *Uti minus malum habet rationem boni, ita minus bonum habet rationem mali.*² To act with less perfection than one is capable of is to act imperfectly. To show that an architect could have done his work better is to find fault with his work. This opinion is also contrary to the Holy Scriptures, which assure us of the goodness of God's works. For supposing this opinion were justified, since the imperfections follow a scale descending endlessly, whatever works God might have created, they would always be good in comparison with the less perfect. But a thing is hardly praiseworthy if it can be praised only in this way. I believe also that a great many passages will be found in the divine writings and the Church Fathers which favor my opinion but scarcely any supporting that of the moderns³, an opinion which was, I think, unknown to all antiquity and is based only on the inadequate knowledge which we have of the general harmony of the

universe and the hidden reasons for God's conduct. This makes us judge rashly that many things might have been made better. Besides, these moderns insist on certain untenable subtleties, for they imagine that nothing is so perfect that there is not something more perfect, which is an error.⁴ They believe also that thus they are safeguarding God's freedom, as though it were not the highest freedom to act in perfection according to sovereign reason. For to think that God acts in any matter without having any reason for his will, even overlooking the fact that this seems impossible, is an opinion which is hardly in accord with God's glory. Let us assume, for example, that God chooses between *A* and *B* and that he takes *A* without having any reason for preferring it to *B*. I say that such action by God is at least not praiseworthy, for all praise should be based on some reason, and there is none here, by hypothesis. I hold, instead, that God does nothing for which he does not deserve to be praised.

4. *That the love of God requires our entire satisfaction with and acquiescence in that which he has done.* The general knowledge of this great truth, that God always acts in the most perfect and the most desirable way possible, is in my opinion the basis of the love which we owe to God above all things, since he who loves seeks his satisfaction in the felicity or perfection of the object loved and of his actions. *Idem velle et idem nolle vera amicitia est.*⁵ I believe that it is difficult to love God truly if, having the power to change his inclination, one is not inclined to will what he wills. In fact, those who are not satisfied with what he does seem to me like discontented subjects whose intentions are not very different from those of rebels. According to these principles, I hold therefore that, in order to act in conformity to the love of God, it is not enough to force ourselves to be patient; we must be truly satisfied with everything that has happened to us according to his will. I mean this acquiescence to apply to the past; for as to the future we ought not to be *quietists* and stand with folded arms ridiculously waiting to see what God will do, in conformity with the sophism which the ancients called *λόγον ἀργον*, or the lazy reason.⁶ We must rather act in accordance with the *presumptive will of God*, so far as we are able to know it, trying with all our might to contribute to the general welfare and particularly to the ornament and perfection of that which concerns us or that which is nearest us and so to speak, within our reach. For though the outcome may perhaps show us that God did not wish our good will to be effective for the present, it does not follow that he did not will us to do what we did. On the contrary, since he is the best of all masters, he never demands more than righteous intentions, and it is for him to know the proper hour and place for making our good designs successful.

5. *Of what the rules of the perfection of the divine action consist; and that the simplicity of the means is in balance with the richness of the effects.* 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 understand the reasons in particular which have moved him to choose this order of the universe – to allow sin to be committed, to dispense his saving grace in a certain way – this surpasses the powers of a finite mind, especially if this mind has not yet attained the blessedness of the vision of God. Some general remarks can be made, however, about the ways of providence in the government of affairs. It can be said, then, that he who acts perfectly is like an excellent geometrician who knows how to find the best constructions of a problem; or a good architect who makes the most advantageous use of the space and the capital intended for a building, leaving nothing which offends or which lacks the beauty of which it is capable; or a

good family head who makes such use of his holdings that there is nothing uncultivated and barren; or a skilled machinist who produces his work by the easiest process that can be chosen; or a learned author who includes the greatest number of subjects in the smallest possible volume. But the most perfect of all beings, and those which occupy the smallest volume, that is to say, those which least obstruct each other, are spirits, whose perfections consists in their virtues. This is why there can be no doubt that the happiness⁷ of spirits is the principal end of God and that he puts this principle into practice as far as the general harmony permits. We shall have more to say about this later. As for the simplicity of the ways of God, this is shown especially in the means which he uses, whereas the variety, opulence, and abundance appears in regard to the ends or results. The one ought thus to be in equilibrium with the other, just as the funds intended for a building should be proportional to the size and beauty one requires in it. It is true that nothing costs God anything, even less than it costs a philosopher to build the fabric of his imaginary world out of hypotheses, since God has only to make his decrees in order to create a real world. But where wisdom is concerned, decrees or hypotheses are comparable to expenditures, in the degree to which they are independent of each other, for reason demands that we avoid multiplying hypotheses or principles, somewhat as the simplest system is always preferred in astronomy.⁸

6. *That God does nothing which is disorderly, and that it is not even possible to assume events which are not according to rule.* The volitions or actions of God are commonly classified into ordinary and extraordinary acts. But it is well to understand that God does nothing without order. So whatever passes for extraordinary is so only in relation to some particular order established among creatures. For as concerns universal order, everything is in conformity with it. So true is this that not only does nothing happen in the world which is absolutely irregular but one cannot even imagine such an event. For let us assume that someone puts down a number of points on paper entirely at random, as do those who practice the ludicrous art of geomancy; I maintain that it is possible to find a geometric line whose law is constant and uniform and follows a certain rule which will pass through all these points and in the same order in which they were drawn. And if someone draws an uninterrupted curve which is now straight, now circular, and now of some other nature, it is possible to find a concept, a rule, or an equation common to all the points of the line, in accordance with which these very changes must take place. There is no face, for example, whose contour does not form part of a geometric curve and cannot be drawn in one stroke by a certain regular movement. But when the rule for this movement is very complex, the line which conforms to it passes for irregular. Thus we may say that no matter how God might have created the world, it would always have been regular and in a certain general order. But God has chosen that world which is the most perfect, that is to say, which is at the same time the simplest in its hypotheses and the richest in phenomena, as might be a geometric line whose construction would be easy but whose properties and effects would be very remarkable and of a wide reach. I make use of these comparisons merely to portray an imperfect semblance of the divine wisdom and to say that which can at least lift our spirit to some conception of what cannot well be expressed. But I do not at all claim to explain by means of it the great mystery upon which the entire universe depends.

7. *That miracles conform to the general order although they may be contrary to the*

subordinate regulations; on what God wills or what he permits, and on his general or particular will. Now since nothing can happen which is not according to order, it can be said that miracles are as much subject to order as are natural operations and that the latter are called natural because they conform to certain subordinate maxims which we call the nature of things. For we may say that this nature is merely a custom of God's with which he can dispense for any reason stronger than that which moved him to use these maxims. As for general or particular volitions, we may say, depending upon how the matter is understood, that God does everything according to his most general will which conforms with the most perfect order which he has chosen. But we can also say that he has particular volitions which are exceptions to these subordinate maxims.⁹ For the most general of God's laws, which rules the whole sequence of the universe, is without exception. It can also be said that God wills everything which is an object of his particular volition; but as for the objectives of his general will, such as the actions of creatures, especially of those which are reasonable and with whom God wishes to co-operate, we must make a distinction. If the action is good in itself, we can say that God wishes it and sometimes commands it, even though it does not take place. But if the action is evil in itself, and becomes good only by accident because the course of events, particularly punishment and satisfaction, corrects its malignity and repays the evil with interest in such a way that more perfection is found in the whole sequence than if the evil had not occurred – then we must say that God permits it but not that he wills it, although he has concurred in it through the natural laws which he has established and because he knows how to draw a greater good from it.

8. *To distinguish the actions of God from those of creatures we must explain what the concept of an individual substance is.* It is rather difficult to distinguish the actions of God from those of creatures¹⁰, for there are those who believe that God does everything, while others imagine that he does nothing but conserve the force which he has given to creatures. We shall see in what follows the sense in which we can say the one or the other. Now since activity and passivity pertain distinctively to individual substances (*actiones sunt suppositorum*)¹¹, it will be necessary to explain what such a substance is. It is of course true that when a number of predicates are attributed to a single subject while this subject is not attributed to any other, it is called an individual substance. But this is not enough, and such a definition is merely nominal. We must consider, then, what it means to be truly attributed to a certain subject. Now it is certain that every true predication has some basis in the nature of things, and when a proposition is not an identity, that is to say, when the predicate is not expressly contained in the subject, it must be included in it virtually. This is what the philosophers call *in-esse*, when they say that the predicate *is in* the subject. So the subject term must always include the predicate term in such a way that anyone who understands perfectly the concept of the subject will also know that the predicate pertains to it. This being premised, we can say it is the nature of an individual substance or complete being to have a concept so complete that it is sufficient to make us understand and deduce from it all the predicates of the subject to which the concept is attributed. An accident, on the other hand, is a being whose concept does not include everything that can be attributed to the subject to which the concept is attributed. Thus the quality of king which belonged to Alexander the Great, if we abstract it from its subject, is not determined enough to define an individual, for it does not include the other qualities of the same subject or everything which the concept of this prince includes.

God, on the contrary, in seeing the individual notion or 'haecceity' of Alexander, sees in it at the same time the basis and the reason for all the predicates which can truly be affirmed of him – for example, that he will conquer Darius and Porus – even knowing a priori (and not by experience) what we can know only through history – whether he died a natural death or by poison. Thus when we well consider the connection of things, it can be said that there are at all times in the soul of Alexander traces of all that has happened to him and marks of all that will happen to him and even traces of all that happens in the universe, though it belongs only to God to know them all.

9. *That each singular substance expresses the whole universe in its own way, and that in its concept are included all of the experiences belonging to it together with all of their circumstances and the entire sequence of exterior events.* From these considerations there follow a number of important paradoxes; among others that it is not true that two substances can resemble each other completely and differ only in number and that what St. Thomas says on this point about angels or intelligences (*quod ibi omne individuum sit species infima*)¹² is true of all substances, provided that we take the specific difference as geometers understand it in their figures. It follows also that a substance cannot come into being except by creation, or perish except by annihilation; that a substance cannot be divided in two, or one substance made out of two, so that the number of substances does not increase or diminish naturally, though they are often transformed. Moreover, every substance is like an entire world, and like a mirror of God or of the whole universe which it expresses, each in its own manner, about as the same city is represented differently depending on the different positions from which it is regarded. Thus the universe is in a certain sense multiplied as many times as there are substances, and the glory of God is likewise redoubled by as many wholly different representations of his work. It can even be said that every substance in some way bears the character of God's infinite wisdom and omnipotence and imitates him as much as it is capable. For it expresses, however confusedly, everything that takes place in the universe, past, present, or future; this resembles somewhat an infinite perception or an infinite knowledge. And since all other substances in their turn express this one in their own way, and adapt themselves to it, it can be said that each extends its power over all the rest in imitation of the omnipotence of the creator.

10. *That there is something sound in the belief in substantial forms, but that these forms change nothing in the phenomena and must not be used to explain particular effects.* Not only the ancients but also many able men given to deep meditation who taught theology and philosophy some centuries ago, some of whom are to be respected also for their saintliness, seem to have had some knowledge of what we have just said; this is why they have introduced and maintained the substantial forms which are so widely discredited today. But they are not so far from the truth, or so ridiculous, as our modern philosophers commonly imagine. I agree that the consideration of these forms serves no purpose in the details of physics and that they ought not to be used to explain particular phenomena. In this the Scholastics failed, as did the physicists of the past who imitated them, thinking that they could account for the properties of bodies by mentioning forms and qualities, without taking pains to examine the manner of their operation. This is as if one were content to say that a clock has a time-indicating property proceeding¹³ from its form, without inquiring wherein this property consists. This is of course enough for the man who buys it, if he turns over its care to someone

else. But this inadequate understanding and abuse of the forms ought not to make us reject something whose knowledge is so necessary in metaphysics that without it, I hold, we cannot well understand the first principles or raise the spirit to the knowledge of incorporeal natures and the wonders of God. A geometrician does not need to encumber his mind with the famous labyrinth of the composition of the continuum, and no moral philosopher, and still less a jurisconsult or politician, needs to trouble himself with the great difficulties involved in reconciling free will with the providence of God, since the geometrician can carry through his demonstrations, and the politician finish his deliberations, without entering these discussions; yet these problems are nonetheless necessary and important in philosophy and theology. Just so a physicist can give an explanation of his experiments, making use, now of simpler experiences already past, now of geometric and mechanical demonstrations, without needing the general considerations which belong to another sphere. If he does make use of the co-operation of God or of some soul or Archeus¹⁴ or of something else of this nature, he is raving, just as much as a man who would enter into the great discussion concerning the nature of destiny and of our liberty, in deciding an important practical problem. Men in fact often commit this fault without thinking of it when they encumber their mind by the consideration of fatalism and are even sometimes diverted by it from some good resolve or from some necessary concern.

11. *That the thoughts of the theologians and philosophers who are called scholastics are not to be entirely disdained.* I know that I am advancing a great paradox in seeking to restore the old philosophy in some respects and to restore these almost-banished substantial forms. But perhaps I shall not be condemned so lightly when it is known that I have given much thought to the modern philosophy and that I have spent much time in physical experiments and geometric demonstrations and was for a long time convinced of the emptiness of these beings to which I am at last compelled to return in spite of myself and as by force. This is after I have myself carried out studies which convinced me that our moderns do not do enough justice to St. Thomas and other great men of his time and that the opinions of the Scholastic philosophers and theologians are much sounder than has been imagined, provided that they are used appropriately and in their proper place. I am even convinced that if some exact and thoughtful mind were to take the pains to clarify and to assimilate their thoughts after the manner of the analytic method of geometers, he would find a great treasure of very important and strictly demonstrative truths.

12. *That the concepts which are involved in extension include something imaginary and cannot constitute the substance of the body.* But to take up the thread of my considerations again, I believe that anyone who will meditate about the nature of substance as I have explained it above will find¹⁵ that the entire nature of the body does not consist merely in extension, that is to say, in size, figure, and motion, but that there must necessarily be recognized in it something related to souls, which is commonly called a substantial form, although this form makes no change in the phenomena, any more than does the soul of beasts if they have one. It can even be demonstrated that the concepts of size, figure, and motion are not so distinct as has been imagined and that they include something imaginary and relative to our perceptions, as do also (though to a greater extent) color, heat, and other similar qualities which one may doubt truly are found in the nature of things outside of ourselves.¹⁶ This is why qualities of this kind cannot constitute any substance. And if there is no other principle of identity in

body than those we have just mentioned, no body can ever subsist longer than a moment.¹⁷ Meanwhile the souls and the substantial forms of the other bodies are very different from intelligent souls, who alone know their actions and who not only never perish naturally but even preserve always the fundamental knowledge of what they are. This makes them alone susceptible of punishment and reward and citizens of the commonwealth of the universe of which God is the monarch. It follows also that all the other creatures should serve them; a matter which we shall discuss more fully later.

13. *Since the individual concept of each person includes once and for all everything which can ever happen to him, one sees in it a priori proofs or reasons for the truths of each event and why one has happened rather than another, but these truths, however certain, are nevertheless contingent, being based on the free will of God and of creatures. It is true that their choice always has its reasons, but these incline without necessitating.* But before we go further we must try to meet a great difficulty which may grow out of the foundations which we have laid above. We have said that the concept of an individual substance once and for all includes everything which can ever happen to it and that in considering that concept, one can see everything which can truly be predicated of it, just as we can see in the essence of the circle all the properties which can be deduced from it. But it seems that this will destroy the distinction between contingent and necessary truths, that it will leave no place for human liberty, and that an absolute fatalism will rule over all our actions as well as over the other events of the world. To this I reply that we must distinguish between what is certain and what is necessary. It is universally agreed that future contingents are certain, since God foresees them, but this does not make us say that they are necessary. But someone may object that if a certain conclusion can be deduced infallibly from a given definition or concept, that conclusion will be necessary. And we are now maintaining that everything that happens to some person is already contained virtually in his nature or concept, just as the properties of the circle are contained in its definition. Thus the difficulty still subsists. To answer it squarely, I say that there are two kinds of connection or sequence. One is absolutely necessary, for its contrary implies a contradiction, and this deductive connection occurs in eternal truths like those of geometry. The other is necessary only *ex hypothesi*, and by accident, so to speak, and this connection is contingent in itself when its contrary implies no contradiction. A connection of this kind is not based on pure ideas and on the simple understanding of God but also on his free decrees and on the sequence of events in the universe. Let us take an example. Since Julius Caesar is to become perpetual dictator and master of the republic and will destroy the liberty of the Romans, this action is contained in his concept, for we have assumed that it is the nature of such a perfect concept of a subject to include everything, so that the predicate is included in it – *ut possit inesse subjecto*. One could say that it is not by virtue of this concept or idea that he must commit this act, since the concept fits him only because God knows everything. But, someone will insist, his nature or form corresponds to this concept, and since God imposed this personality upon him, it is henceforth necessary for him to fulfil it. I could reply by pointing out the case of future contingents, which as yet have reality only in the understanding and the will of God; but since God has given them this form in advance, it is all the same necessary for them to respond to it. But I prefer to meet difficulties rather than to extenuate them by pointing out certain other similar difficulties, and what I am about

to say will serve to clear up the one as well as the other. It is here, then, that we must apply the distinction we have made between the classes of connections, and I say that whatever happens in conformity to these divine anticipations is assured but not necessary and that if anyone were to do the contrary, he would not do anything impossible in itself, though it would be impossible *ex hypothesi* for it to happen. For if some man were able to carry out the complete demonstration by virtue of which he could prove this connection between the subject, who is Caesar, and the predicate, which is his successful undertaking, he would actually show that the future dictatorship of Caesar is based in his concept or nature and that there is a reason in that concept why he has resolved to cross the Rubicon rather than stop there, and why he has won rather than lost the day at Pharsalus, and why it was reasonable and consequently assured that this should happen. But this man could not show that these events are necessary in themselves or that their contrary implies a contradiction. In the same way it is reasonable and assured that God will always do what is best, even though what is less perfect implies no contradiction. For it will be found that this demonstration of the predicate of Caesar is not as absolute as that of numbers or of geometry but that it supposes the sequence of things which God has freely chosen and which is founded on the first free decree of God, which leads him always to do what is most perfect, and on the decree which God has made about human nature (following the primary one), which is that man shall always do, though freely, that which appears to him to be best. But every truth which is based on this kind of a decree is contingent, even though it is certain, for these decrees do not change the possibility of things. And as I have already said, though God assuredly always chooses the best, this does not prevent something less perfect from being and remaining possible in itself, even though it will never happen, for it is not its impossibility but its imperfection which causes God to reject it. Now nothing is necessary whose opposite is possible. So we are in a position to meet difficulties of this kind, no matter how great they may seem (and in fact they are no less pressing for all the other thinkers who have taken up this matter), provided that we consider carefully that all contingent propositions have reasons for being as they are and not otherwise or what amounts to the same thing, that they have a priori proofs of their truth which make them certain and which show that the relation between subject and predicate of these propositions has its basis in the nature of both. But we must consider too that these proofs are not demonstrations of necessity, since these reasons are based only on the principle of contingency or of the existence of things, that is to say, on what is or appears to be the best among several equally possible things. Necessary truths, by contrast, are based on the principle of contradiction and on the possibility or impossibility of essences themselves, without considering in this relation the free will of God or of the creatures.¹⁸

14. *God produces diverse substances according to the different views he has of the world, and through the intervention of God the nature proper to each substance involves that what happens to one corresponds to what happens to all the others, without their acting upon one another directly.* After having to some extent seen in what the nature of substances consists, we must try to explain the dependence they have on each other and their actions and their passions. Now it is clear, first of all, that the created substances depend on God, who preserves them and indeed even produces them continually by a kind of emanation, as we produce our thoughts. For as God turns the universal system of phenomena which he has seen fit to produce in order to manifest

his glory, on all sides and in all ways, so to speak, and examines every aspect of the world in every possible manner, there is no relation which escapes his omniscience, and there thus results from each perspective of the universe, as it is seen from a certain position, a substance which expresses the universe in conformity to that perspective, if God sees fit to render his thought effective and to produce that substance. And since God's perspective is always true, our perceptions are also always true; it is our judgments, which come from ourselves, which deceive us.¹⁹ But we have already said, and it follows from what we have just said, that each substance is as a world apart, independent of everything outside of itself except God. Thus all our phenomena, that is to say, all the things that can ever happen to us, are only the results of our own being. And since these phenomena maintain a certain order which conforms to our nature or, so to speak, to the world which is within us, so that we are able to make observations that are useful for controlling our own conduct and justified by the success of future phenomena, with the result that we can often judge the future by the past without deceiving ourselves, this would be sufficient to enable us to say that these phenomena are true, without being put to the task of inquiring whether they are outside of us and whether others perceive them also. Nevertheless it is true that the perceptions or expressions of all substances intercorrespond, so that each one, following with care the established reasons or laws which it has observed, meets with others who have done this also. When a number of people have agreed to meet together in some place on a previously determined day, they can do this successfully if they wish. But although all express the same phenomena, it does not follow from this that their expressions are exactly alike; it suffices that they are proportional. So a number of spectators believe that they see the same thing and are in fact in agreement about it, although each one sees and speaks of it according to the measure of his own point of view. It is only God (from whom all individuals emanate continually and who sees the universe not only as they see it but also entirely differently from all of them), who is the cause of this correspondence between their phenomena and who makes public to all that which is peculiar to one; otherwise there would be no interconnection.²⁰ We might say, then, in a way, and with good meaning, though not in accordance with common usage, that one particular substance never acts upon another particular substance, nor is it acted upon by it, if we keep in mind that what happens to each is solely the result of its own complete idea or concept, since this idea already includes all the predicates or events and expresses the whole universe. Nothing can in fact happen to us except thoughts and perceptions, and all our future thoughts and perceptions are only the consequences, however contingent they may be, of our preceding ones, so that if I were capable of considering distinctly everything that is happening to me or appearing to me at this hour, I could see in it everything which will ever happen or appear to me. And this would not fail to happen to me, even if all that there is outside of me were to be destroyed, provided there remained only God and myself. But since we do attribute to other things as causes acting upon ourselves that which we perceive in a certain way, we must consider the basis of this judgment and the element of truth which it has in it.

15. *The action of one finite substance upon another consists in nothing but the increase of degree of its expression together with the diminution of the expression of the other, insofar as God has formed them in advance in such a way that they are adapted to each other.* To reconcile the language of metaphysics with that of practice, it will suffice for the

present, without entering into a long discussion, to remark that we ascribe to ourselves, primarily and with reason, those phenomena which we express more perfectly and that we attribute to other substances those phenomena which each expresses best. Thus a substance which has an infinite extension, insofar as it expresses everything, becomes limited through the more or less perfect way in which it expresses each thing. It is in this sense, then, that we can think of substances as impeding and limiting each other, and consequently it is in this sense that we can say that they act upon each other and are obliged, so to speak, to adapt themselves to each other. For it can happen that a single change which increases the expression of one will diminish that of another. Now it is the virtue of a particular substance to express well the glory of God, and the better it expresses it, the less limited it is. And whenever anything exercises its virtue or power, that is to say when it acts, it improves and enlarges itself in proportion to its action. Therefore when a change takes place by which a number of substances are affected (as a matter of fact, every change affects them all), I believe it can be said that any substance which thereby passes immediately to a greater degree of perfection or to a more perfect expression exercises its power and *acts*, while any substance which passes to a lesser degree of perfection shows its weakness and *suffers*. I hold too that every action of a substance which has perfection involves some pleasure, and every passion some pain, and vice versa. Yet it may well happen that a present advantage may be destroyed by a greater evil in the future, so that one can sin in acting or in exercising his power and in finding pleasure.

16. *The extraordinary concourse of God is included in that which our essence expresses, for this expression includes everything. But this concourse surpasses the power of our nature or of our distinct expression, which is finite and follows certain subordinate maxims.* For the present it remains for me only to explain how God can sometimes influence men and other substances through an extraordinary and miraculous intervention, since it seems that nothing can happen to them which is extraordinary or supernatural, inasmuch as all events are only consequences of their own nature. But we must remember what we have said above concerning miracles occurring in the universe – that they always conform to the universal law of general order, even though they may be above the subordinate rules. Since every person or substance is like a little world which expresses the great one, we can say equally that this extraordinary action of God upon this substance is always miraculous, 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. Therefore there is nothing supernatural in us if we include in our nature everything which it expresses, for it extends to everything; since an effect always expresses its cause and since God is the true cause of the substances. But that which our nature expresses more perfectly belongs to it in a particular way, because it is in this expression that its power consists; yet this power is limited, as I have just explained. There are therefore many things which surpass the powers of our nature and even the powers of all limited natures. To speak more clearly, therefore, I say that the miracles and extraordinary interventions of God have this peculiarity – that they cannot be foreseen by the reasoning of any created spirit, no matter how enlightened, because the distinct understanding of the general order is beyond all such spirits. Everything which is called natural, on the other hand, depends on less general maxims which creatures can understand. In order, then, that my words as well as my meaning may be beyond criticism, it is convenient to adapt certain ways of speech to

certain thoughts. We can therefore define our essence or idea as that which includes everything which we express. And since our substance expresses our union with God himself, it has no limits and nothing is beyond it. But whatever is limited in us could be called our nature or our power, and in this sense, whatever surpasses the natures of all created substances is supernatural.

17. *An example of a subalternate maxim in a law of nature; where it is shown that God always conserves by rule the same force but not the same quantity of motion, against the Cartesians and many others.* I have already made frequent mention of subordinate rules or of the laws of nature, and it seems desirable to give an example of these. Our new philosophers commonly make use of the famous rule that God always conserves the same quantity of motion in the world. This rule is indeed most plausible, and I have in the past regarded it as beyond doubt. But more recently I have discovered wherein it is in error. This is that Descartes and many other able mathematicians believed that the quantity of motion, that is, the velocity multiplied by the magnitude of the moving body, coincides exactly with the moving force; or to speak geometrically, that the forces are proportional to the product of velocities and masses.²¹ Now it is reasonable that the same force should always be conserved in the universe. Also, when we attentively observe the phenomena, it is clear that perpetual mechanical motion cannot occur, because then the force of a machine, which is always diminished a little by friction and must therefore soon come to an end, would restore itself and consequently increase itself without any new impulsion from without. We observe also that the force of a body is only diminished in proportion as it imparts force to some bodies contiguous to it or to its own parts insofar as they have a separate movement. So these mathematicians have thought that what can be said of force can also be said of the quantity of motion. But to show that there is a difference, I make the *assumption* that a body falling from a certain height acquires the force to rise again to the same height if its direction carries it that way and if it meets with no obstructions. For example, a pendulum would rise again exactly to the height from which it has descended if air resistance and other small obstacles did not slightly diminish its acquired force. I make the further *assumption* that it takes as much force to lift a body *A* of 1 pound to the height *CD* of 4 fathoms as it takes to lift a body *B* of 4 pounds to the height of 1 fathom. All this is admitted by our new philosophers. It is clear, then, that having fallen from the height of *CD*, the body *A* has acquired exactly as much force as the body *B* when it has fallen from the height *EF* (see No. 34, Figure 11, p. 297). For the body *B*, having fallen to *F* and possessing at this point the force to rise again to *E* (by my first assumption) has therefore enough force to lift a body of 4 pounds, that is to say, itself, to the height *EF* of 1 fathom; and similarly, the body *A*, having fallen to *D* and having at this point enough force to rise to *C*, has the power to lift a body of 1 pound, that is, itself, to the height *CD* of 4 fathoms. Then (by the second assumption) the force of these two bodies is equal. Let us see now if the quantity of motion is also equal in the two bodies; here we shall be surprised to find a very great difference. For as Galileo has demonstrated, the velocity acquired by the fall *CD* is twice the velocity acquired by the fall *EF*, though the height is four times as big. Then if we multiply the body *A* (equal to 1) by its velocity (equal to 2), the product or the quantity of motion will be equal to 2; on the other hand, if we multiply the body *B* (equal to 4) by its velocity (which is equal to 1), the product or quantity of motion will be equal to 4. So the quantity of motion of the body *A* at the point *D* is half the quantity of motion of the body *B* at the point *F*;

yet their forces are equal. Thus there is a great difference between quantity of motion and force, which was to be proved. We may see from this that *force* must be estimated by the quantity of the effect which it can produce, for example, by the height to which a heavy body of a certain size and kind can be lifted; and this is quite different from the velocity which can be imparted to it. To give it double its velocity, more than double the force is necessary. Nothing is simpler than this proof, and Descartes has fallen into error here only because he had too much confidence in his thoughts even when they were not yet sufficiently mature. But I am surprised that his disciples have not since discovered this error. I fear that they are beginning little by little to imitate certain of the Peripatetics whom they ridicule, like them gradually acquiring the habit of consulting the books of their master rather than reason and nature.

18. *The distinction between force and quantity of motion is important among other reasons in order to show that we must have recourse to metaphysical considerations apart from extension in order to explain the phenomena of bodies.* This consideration, in which force is distinguished from quantity of motion, is of importance not only in physics and mechanics in finding the true laws of nature and the rules of motion, and even in correcting many errors in practice which have slipped into the writings of a number of able mathematicians, but also in metaphysics for the better understanding of the principles. For considering only what it means narrowly and formally, that is, a change of place, motion is not something entirely real; when a number of bodies change their position with respect to each other, it is impossible, merely from a consideration of these changes, to determine to which bodies motion ought to be ascribed and which should be regarded as at rest, as I could show geometrically if I wished to stop now to do it. But the force or the immediate cause of these changes is something more real, and there is a sufficient basis for ascribing it to one body rather than to another. This, therefore, is also the way to learn to which body the motion preferably belongs. Now this force is something different from size, figure, and motion, and from this we can conclude that not everything which is conceived in a body consists solely in extension and its modifications, as our moderns have persuaded themselves. Thus we are compelled to restore also certain beings or forms which they have banished. And although all particular phenomena of nature can be explained mathematically or mechanically by those who understand them, it becomes more and more apparent that the general principles of corporeal nature and of mechanics themselves are nevertheless metaphysical rather than geometrical and pertain to certain forms or indivisible natures as the causes of what appears rather than to the corporeal or extended mass. This reflection is capable of reconciling the mechanical philosophy of the moderns with the caution of certain intelligent persons of good will who fear, with some reason, that we may withdraw too far from immaterial beings and thereby put piety at a disadvantage.

19. *The utility of final causes in physics.* Since I do not like to accuse people wrongly, I make no charge against our new philosophers who claim to banish final causes from physics, but I am nonetheless obliged to confess that the consequences of this opinion seem to me to be dangerous, especially if I combine it with the view which I refuted at the beginning of this discourse, which seems to go the length of denying final causes entirely, as if God in acting had proposed no end or good whatever, or as if the good were not the object of his will. I hold on the contrary, that it is exactly in this that the principle of all existences and of the laws of nature is to be sought, for God always

aims at the best and the most perfect. I willingly admit that we are liable to deceive ourselves when we try to determine the ends or designs of God, but this is only when we seek to limit them to some particular design, thinking that he has had in view only one particular thing, when in fact he at the same time takes into consideration the whole. Thus it is a great abuse to believe that God made the world only for us, although it is very true that he made it in its entirety for us and that there is nothing in the universe which does not affect us and which does not also comply with the regard which he has for us, in accordance with the principles set forth above. Therefore when we see any good effect or some perfection which occurs or which ensues from the works of God, we can say with certainty that God has purposed it, for he does nothing by chance and is not comparable to us, who sometimes fail to do what is good. Therefore, while overzealous politicians may deceive themselves by imagining too much subtlety in the designs of their princes, or while commentators may err in seeking more erudition in their author than he has, we cannot be mistaken in this or attribute too much reflection to this infinite wisdom, and there is no subject in which we need less to fear error provided we limit ourselves to affirmations and avoid negative statements which limit the designs of God.

Anyone who sees the wonderful structure of animals will find himself forced to recognize the wisdom of the Author of all things. And I advise those who have any feeling of piety, and indeed of true philosophy, to keep away from the phrases of certain would-be freethinkers who say that we see because we happen to have eyes but that eyes were not made for the purpose of seeing. If one seriously accepts these opinions which ascribe everything to the necessity of matter or to a certain chance (though both of these views should seem ridiculous to anyone who understands what we have explained above), it is difficult to acknowledge an intelligent Author of nature. For the effect must correspond to its cause and is even known best through a knowledge of its cause. It is unreasonable to introduce a sovereign intelligence as the orderer of things, and then, instead of making use of his wisdom, to employ only the properties of matter in explaining phenomena. This is as if a historian should try to explain the conquest of some important place by a great prince, by saying that it occurred because the small particles of gunpowder, set free by the contact of a spark, escaped with a velocity capable of pushing a hard and heavy body against the walls of the place, while the little particles which composed the bronze of the cannon were so firmly interlaced that this velocity did not force them apart; instead of showing how the foresight of the conqueror led him to choose suitable time and means, and how his power overcame all obstacles.

20. *A noteworthy passage by Socrates in Plato's Phaedo against the philosophers who are too materialistic.* This reminds me of a beautiful passage by Socrates in Plato's *Phaedo* which agrees most remarkably with my opinions on this point and seems to be directed expressly against our too materialistic philosophers. Hence I have been tempted to translate this account, although it is a little long. Perhaps this little sample will lead someone to select for us many of the other beautiful and sound thoughts which are found in the writings of this famous author.²²

21. *If mechanical laws depended upon geometry alone without metaphysics, phenomena would be entirely different.* Now since the wisdom of God has always been recognized in the detail of the mechanical structure of certain particular bodies, it must also be shown in the general economy of the world and in the constitution of the laws of

nature. This is so true that one can observe the designs of this wisdom in the general laws of motion. For if there were nothing in bodies but extended mass, and nothing in motion but change of place, and if everything should and could be deduced solely from the definitions of these by geometric necessity, it would follow, as I have elsewhere shown, that the smallest body, in colliding with the greatest body at rest, would impart to it its own velocity, without losing any of this velocity itself; and it would be necessary to accept a number of other such rules which are entirely contrary to the formation of a system.²³ But the decree of the divine wisdom to conserve always the same total force and the same total direction has provided for this. I find even that several effects of nature can be doubly demonstrated; once, by the consideration of their efficient cause, and again, independently, by the consideration of the final cause, making use for example, of the decree of God always to produce his effect by the easiest and most determined ways, as I have shown elsewhere in accounting for the rules of catoptrics and dioptrics; I shall have more to say about this soon.²⁴

22. *A reconciliation of two methods of explanation, one of which proceeds by final causes, the other by efficient causes; to satisfy both those who explain nature mechanically as well as those who have recourse to incorporeal natures.* It is convenient to make this comment in order to reconcile those who hope to explain mechanically the formation of the primary texture of an animal and the whole machinery of its parts, with those who account for this same structure through final causes. Both methods are good, both can be useful not only for admiring the skill of the great workman but also for making useful discoveries in physics and in medicine. Authors who take these different routes ought not to abuse each other. For those who are intent on explaining the beauty of the divine anatomy, I observe, laugh at those who imagine that what seems to be a chance flow of certain liquids could have produced so beautiful a variety of parts and denounce them as rash and irreverent. And these latter, I observe also, treat the former in their turn as simple and superstitious, comparing them to the ancients who regarded the physicists as impious when they maintained that it is not Jupiter who thunders but some matter found in the clouds.²⁵ The best would be to combine the two points of view, for if I be permitted to use a lowly comparison, I acknowledge and praise the skill of a workman, not only in showing the plans which he had in making the pieces of his machine, but also in explaining the tools which he has used in making each piece, especially when these tools are simple and cleverly contrived. And God is an artisan skilful enough to produce a machine a thousand times more ingenious than that of our bodies, by using nothing but certain rather simple fluids formed expressly in such a way that only the ordinary laws of nature are needed to give them the organization necessary to produce so admirable an effect. But it is true also that this would not happen if God were not the Author of nature. Yet I find that the way of efficient causes, which is in fact the profounder and in some ways the more immediate and a priori, is on the other hand, rather difficult when one comes to details, and I believe that for the most part our philosophers are still far from mastering it. The way of final causes, however, is easier and is often useful for understanding important and useful truths, which one would be a long time seeking by the other more physical route; of this fact, anatomy can provide significant examples. I believe, too, that Snell, who first discovered the rules of refraction, would have waited a long time to find them if he had sought first to discover how light is formed. But apparently he followed the method which the ancients used in catoptrics, which is in fact that of final causes. For seeking

the easiest way in which to direct a ray from one given point to another through reflection by a given plane (assuming that the easiest way is the plan of nature), they discovered the equality of the angles of incidence and reflection, as one can see in a little treatise by Heliodorus of Larissa and elsewhere. This method, I believe, Snell, and later though independently of him Fermat, applied most ingeniously to refraction. For when rays in the same media observe a ratio between the sines which is equal to the ratio of the resistances of the media, this happens to be the easiest, or at least the most determined way to pass from a given point in one medium to a given point in another. The demonstration which Descartes sought to give of this same theorem by the method of efficient causes is not nearly so good. At least we have grounds to suspect that he would never have found it by this method if he had not learned anything of Snell's discovery in Holland.²⁶

23. *To return to immaterial substances, it is explained how God acts on the understanding of spirits; and whether one always has the idea of that which he thinks.* I have found it proper to stress these considerations about final causes, incorporeal natures, and an intelligent cause in connection with bodies in order to show their usefulness even in physics and mathematics and thus to purge the mechanical philosophy, on the one hand, of the impiety with which it is charged and, on the other hand, to raise the spirit of our philosophers from exclusively material considerations to nobler meditations. Now it will be fitting to return from bodies to immaterial natures, and particularly to spirits, and to say something about the way God takes to enlighten them and to act upon them. We must not doubt that there are certain laws of nature here also, about which I could speak more fully elsewhere. At present it will suffice to say something about the doctrine of ideas, and whether we see all things in God, and the sense in which God is our light.²⁷ It may be observed appropriately that a wrong use of the ideas gives occasion for several errors. For when one reasons about something, one imagines himself to have an idea of that thing, and this is the basis on which certain philosophers, ancient and modern, have built one of the demonstrations of God which is most imperfect. For I must have an idea of God, they say, or of a perfect being, since I think of him, and one cannot think without an idea; now the idea of this being includes all perfections, and existence is one of these; therefore he exists. But since we often think of impossible chimeras, for example, of the highest degree of speed, or the largest number, or the intersection of the conchoid with its base or asymptote, this reasoning is insufficient. In this sense, then, we can say that there are true and false ideas, according to whether the thing concerned is possible or not. So one can boast of having an idea of a thing only when one is assured of its possibility. Thus the argument given above at least proves that God exists necessarily, if he is possible. It is indeed an excellent privilege of the divine nature that it needs only its possibility or essence in order actually to exist, and this is precisely what we mean by an *ens a se*.

24. *On what constitutes clear or obscure, distinct or confused, adequate or inadequate, intuitive or suppositive, knowledge; nominal, real, causal, and essential definition.* In order better to understand the nature of ideas, we must to some extent touch upon the various kinds of knowledge.²⁸ When I can recognize one thing among others but cannot say in what its differences or properties consist, my knowledge is *confused*. In this way we sometimes know *clearly*, and without having a doubt of any kind, if a poem or a picture is well done or badly, because it has a certain 'something, I know not

what' which either satisfies or repels us. But when I can explain the criteria I use, my knowledge is called *distinct*. Of this kind is the knowledge of an assayer who distinguishes the true gold from the false by means of certain tests and marks which make up the definition of gold. But distinct knowledge has degrees, for usually the concepts which enter into the definition would themselves need definition and are known only confusedly. But when everything which enters into a definition or distinct knowledge is known distinctly, down to the primitive concepts, I call such knowledge *adequate*. And when my mind grasps all the primitive ingredients of a concept at once and distinctly, it possesses an *intuitive* knowledge. This is very rare, since for the most part human knowledge is merely either confused or *suppositive*.

It is well also to distinguish nominal and real definitions. I call a definition *nominal* when it can still be doubted that the defined concept is possible. So for example, if I say that an endless screw is a line in three dimensions whose parts are congruent or can be brought to coincide with each other, anyone who does not know from another source what an endless screw is could doubt whether such a line is possible, even though this is in fact one of the reciprocal properties of the endless screw, for the other lines whose parts are congruent to each other (there are only two, the circumference of a circle and the straight line) are plane figures, that is to say, they can be drawn in a plane. This shows us that every reciprocal property can serve as a nominal definition but that when the property makes us understand the possibility of a thing, it establishes a real definition. As long as we have only a nominal definition, we cannot be sure of the consequences drawn from it, for if it concealed some contradiction or impossibility, we could draw conflicting conclusions. This is why truths do not depend on names and are not arbitrary, as some modern philosophers have thought. Nevertheless, there is still a great difference between the kinds of real definitions, for when possibility is proved only through experience, the definition is only real and nothing more; as in the definition of quicksilver, the possibility of which we recognize because we know that such a body, extremely heavy and yet rather volatile, is actually found. But when the proof of possibility is presented *a priori*, the definition is both *real* and *causal*, as when it contains the possible production of the thing. And when the definition pushes its analysis back to the primitive concepts without assuming anything which needs an *a priori* proof of its possibility, it is *perfect* or *essential*.

25. *In what case our knowledge is combined with the contemplation of the idea.* Now it is obvious that we have no idea of a concept when it is impossible. And in the case of merely suppositive knowledge, even if we may have an idea, we do not grasp that idea, for such a concept is known only in the same way as are those concepts which involve a hidden impossibility; even if it is possible, we cannot learn of its possibility by this way of knowing. For example, when I think of the number 1,000, or of a regular polygon of a thousand sides, I frequently do it without grasping the idea; just as I do when I say that a thousand is 10 times 100, without taking the trouble to think of what 10 and 100 are, because I suppose that I know it and do not think it necessary to stop just at present to conceive them. So it may very well happen – as it does in fact often happen – that I am in error about a concept which I suppose or believe I understand, although it is in fact impossible, or at least incompatible with other concepts with which I combine it. And whether I am in error or not, this suppositive way of forming concepts remains the same. It is therefore only when our knowledge of confused concepts is *clear*, and our knowledge of distinct concepts is *intuitive*, that we see their whole ideas.

26. *That we have within us all of the ideas. Plato's doctrine of reminiscence.* In order properly to conceive correctly what an idea is, we must forestall an ambiguity, for several thinkers take the idea for the form or the differential of our thoughts, and thus we have an idea in our mind only insofar as we are thinking of it, and every time we think of it anew we have another idea of the same thing, though it is similar to the preceding ones. But others, it seems, take the idea to be an immediate object of thought or for some permanent²⁹ form which remains even when we no longer contemplate it. As a matter of fact, our soul always does have within it the disposition to represent to itself any nature or form whatever, when an occasion arises for thinking of it. I believe that this disposition of our soul, insofar as it expresses some nature, form, or essence, is properly the idea of the thing, which 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 the essences as well as all the existences. This is in accord with my principles, for nothing enters naturally into our minds from without, and it is a bad habit we have of thinking as if our soul received certain 'species' as messengers and as if it had doors and windows.³⁰ We have all these forms in our own minds, and even from eternity, for at every moment the mind expresses all its future thought and already thinks confusedly of everything of which it will ever think distinctly. Nothing can be taught us the idea of which is not already in our minds, as the matter out of which our thought is formed. This Plato has excellently recognized in proposing his doctrine of reminiscence, a well-founded doctrine provided it is taken rightly and purged of the error of pre-existence and provided that we do not imagine that the soul must already have known and thought distinctly at some past time about what it learns and thinks now. Plato has also confirmed his opinion by a beautiful test, introducing a small boy, whom he gradually guides toward the most difficult geometric truths about incommensurables without teaching him anything, but merely asking the appropriate questions in good order.³¹ This shows that our soul knows all these things virtually and needs only to turn its attention to them to recognize truth, and therefore that it at least has the ideas upon which these truths depend. One may even say that it already possesses these truths, if we consider them as the relations between the ideas.

27. *How our soul can be compared to empty tablets, and how our notions come from sense.* Aristotle preferred to compare our souls to tablets that are still blank but upon which there is a place for writing and maintained that there is nothing in our understanding which does not come from the senses. This conforms more with popular notions, as Aristotle usually does, while Plato goes deeper. Yet these kinds of formulas or practical commonplaces are allowed in ordinary usage, in about the same way as Copernicans continue to say that the sun rises and sets. I even find that such usages can often be given a good meaning, according to which they involve no falseness, in the same way that I have already shown in what sense we may truly say that particular substances act upon each other. In this same sense we can also say that we receive our knowledge from without through the ministry of the senses, because certain exterior things contain or express more particularly the reasons which determine our soul to certain thoughts. But when the exactness of metaphysical truths is involved, it is important to recognize the compass and independence of our soul, which reaches infinitely further than is popularly thought, even though we ascribe to it, in the language of ordinary life, only what is most manifestly perceived and what pertains to us more particularly, since under these conditions it serves no purpose to go further. It would

be appropriate, nevertheless, to choose fitting terms for the two meanings, in order to avoid equivocation. So the expressions which are in the soul, whether conceived or not, can be called *ideas*, but those which are conceived or formed can be called *notions* or *concepts*. But in whatever sense they are taken, it is always false to say that all of our notions come from the senses which are called external; for the notions which I have of myself and of my thoughts, and, consequently of being, of substance, of action, of identity, and of many others, come from an internal experience.

28. *God is the only immediate object of our perceptions which exists outside of us, and he only is our light.* In the rigorous sense of metaphysical truth there is no external cause which acts upon us except God alone, and he alone communicates himself to us immediately by virtue of our continual dependence upon him. Whence it follows that there is no other external object which affects our soul and immediately excites our perception. It is also only by virtue of the continual action of God upon us that we have in our soul the ideas of all things; that is to say, since every effect expresses its cause, the essence of our soul is a certain expression, imitation, or image of the divine essence, thought, and will and of all the ideas which are comprised in God. So it can be said that God alone is our immediate object outside of 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 and preserves in us the ideas of them and who determines us, through his ordinary concourse, actually to think of them at the moment when our senses are set in a certain manner, in conformity with the laws which he has established. God is the sun and the light of souls – *lumen illuminans omnem hominem venientem in hunc mundum*³²; and this opinion has not been invented only today. In addition to the Holy Scriptures and the Fathers, who were always more Platonists than Aristotelians, I recall having observed long ago that at the time of the Scholastics, several believed that God is the light of the soul and as they put it, the *intellectus agens animae rationalis*.³³ The Averroists gave this a bad turn of meaning, but others, among them William of Saint Amour, I believe, and several mystical Theologians, understood it in a way worthy of God and capable of elevating the soul to a knowledge of its true good.

29. *Nevertheless we think immediately through our own ideas and not through those of God.* I am not of the opinion of certain able philosophers, however, who seem to hold that our ideas themselves are in God and not at all in us. In my opinion this results from their failure adequately to consider the nature of substances as we have here explained it, and the full compass and independence of the soul, which includes all that happens to it and expresses God and with him all actual and possible beings as an effect expresses its cause. It is also inconceivable that I should think by means of the ideas of someone else. The soul, too, must actually be affected in a certain way when it is thinking of something, and must therefore have within it, in advance, not merely a passive power of being thus affected, a power already entirely determined, but also an active power by virtue of which it has always had, within its own nature, marks of the future production of this thought and the disposition to produce it at the proper time. All this already enfolds the idea embraced in this thought.³⁴

30. *How God inclines our soul without necessitating it; that there is no reason whatever for complaint; that we must not ask why Judas sinned since this free action is contained in his concept, but we must ask only why Judas the sinner, is admitted to existence in preference to other possible persons.* As for the action of God upon the human will, this involves many rather difficult problems which it would take too long to pursue here.

Yet these rough indications may be given. In concurring ordinarily with our actions, God follows only the laws which he has established, that is to say, he continually preserves and produces our being in such a way that our thoughts come to us spontaneously or freely in the order which the concept of our individual substance implies. In this concept it was possible to foresee them from all eternity. Furthermore, by virtue of the decree which he has made that the will shall always strive toward the apparent good, by expressing or imitating God's will under certain particular conditions (with respect to which this apparent good always is to some extent a true good), God determines our will to choose what seems to be the best, but without constraining it. For in an absolute sense the will is in a state of indifference, insofar as this is the opposite of necessity, and it has the power to act otherwise or also to suspend its action entirely, since both alternatives are and remain possible. It rests with the soul, therefore, to guard itself against surprises coming from appearances by means of a firm will, to reflect, and not to act or judge in certain circumstances until after careful and mature deliberation. It is nonetheless true and, indeed, even assured from all eternity that a certain soul will not make use of this power in such circumstances. But whose fault is that? Can the soul complain of anyone but itself? For all such complaints made after the deed are unjust, if they would have been unjust before the deed as well. Could this soul, just before sinning, in good faith complain of God as if he determined it to sin? Since the determinations of God in such matters cannot be foreseen, how can the soul know that it is determined to sin unless it is already sinning in fact? It is merely a question of not willing, and God could not grant an easier and juster condition. So, too, all judges consider only the question of how evil a man's will is, without seeking the reasons which have disposed him to have an evil will. But can it be that it is assured from all eternity that I shall sin? Answer this for yourselves; perhaps it is not. So instead of musing on what you cannot know and what cannot give you any light, act according to the duty which you know. But someone else may say, how does it come that this man will certainly commit this sin? The reply is easy; it is that otherwise he would not be this man. For God foresees from all time that there will be a certain Judas, whose idea or concept which God has contains this future free act. There remains then only this question: Why does such a Judas, a traitor, who is merely possible in the idea of God, actually exist? But to this question no answer can be expected here on earth, except the general one that since God has found it good that he should exist in spite of the sin which God foresaw, this evil must be compensated for with interest in the universe and that God will draw a greater good from it and that it will turn out finally that this sequence of events, including the existence of this sinner, is the most perfect among all other possible kinds. But as long as we are sojourners in this world, it will be impossible always to explain the admirable economy of this choice; it is enough to know it without understanding it. Here it is time to acknowledge the *height of the riches*, the depth and the abyss, of the divine wisdom, without seeking a detail which involves infinite considerations.

It is well understood, however, that God is not the cause of evil. For it is not only after man's fall from innocence that original sin has got hold of the soul; even before, there was an original limitation or imperfection connatural to all creatures, which makes them capable of sin or failure. There is therefore no greater difficulty in supralapsarianism than in other views. And to this, I believe, the opinion of St. Augustine and other authors should be reduced who hold that the root of evil lies in nothingness,

that is, in the privation or limitation of creatures, which God graciously corrects by that degree of perfection which it pleases him to give. This grace of God, whether ordinary or extraordinary, has its degrees and measures; in itself it is always efficacious in producing a definite proportional effect, and furthermore, it is always sufficient not only to protect us from sin but even to accomplish salvation, provided that man meets it with his own powers. But it is not always sufficient to surmount the inclinations of man, for otherwise he would have nothing more to strive for, and this is reserved solely for the absolutely efficacious grace which is always victorious, whether through itself or through the congruity of circumstances.

31. *On the motives of election, on faith foreseen, on the middle science, on the absolute decree, and that every thing reduces itself to the reason why God has chosen and resolved to admit to existence a particular possible person whose concept includes just such a sequence of graces and of free actions. This brings to an end at once all the difficulties.* Finally, God's acts of grace are those of an entirely pure grace, and creatures have no claim upon them. Yet in accounting for the choices which God makes in dispensing his grace, it is not enough to have recourse to his absolute or conditional foresight into the future actions of men. Just so it is also a mistake to imagine absolute decrees without any reasonable motive. As for God's foreknowledge of faith and good works, it is most true that God has elected only those whose faith and charity he has foreseen, *quos se fide donaturum praescivit.*³⁵ But the same question once more arises: Why will God give the grace of faith and good works to some rather than to others? As for this knowledge of God, which is the foresight not of man's faith and good deeds but of the material and predisposition for them, or that which man on his part would contribute, it seems to some that one might say that God, seeing what man would do without grace or extraordinary help, or at least what man would contribute on his side apart from grace, might resolve to bestow his grace upon those who have the best natural dispositions or at any rate, the least imperfect and evil dispositions. For there are diversities on the side of man as truly as on the side of grace; man needs, indeed, to be aroused to the good and converted, but he must also act afterward in this direction. But if this be so, it could still be said that these natural dispositions, insofar as they are good, are still the effect of a grace, though of ordinary grace, God having favored some more than others. And since he very well knows that these natural advantages which he gives will serve as motives of his extraordinary grace or assistance, is it not true according to this doctrine that eventually everything is reduced entirely to his mercy? I think therefore that since we do not know how much and in what way God takes into consideration the natural dispositions in dispensing his grace, it will be most exact and certain to say, in accordance with our principles and as I have already said, that among the possible beings there must be that person Peter or John whose concept or idea contains the entire sequence of grace, ordinary and extraordinary, along with all the other events and their circumstances, and that it has pleased God to choose this one person for actual existence among an infinity of other equally possible persons. With this it seems to me that all questions are answered and all difficulties have vanished.

As for the one great question of why it has pleased God to choose one out of so many other possible persons, it would be very unreasonable not to be content with the general reasons which we have given, since the details lie beyond us. So instead of having recourse to an absolute decree which is unreasonable since it has no reason,

or to reasons which do not solve the difficulty completely and need further reasons themselves, it will be best to say, with St. Paul, that in this God has obeyed certain great counsels of wisdom or of congruity unknown to mortals and based on the general order whose end is the greatest perfection of the universe. It is to this that are reduced the motives of the glory of God, of the manifestation of his justice as well as his mercy and of his perfections in general, and finally, that immense depth of his riches with which the soul of St. Paul himself was so transported.³⁶

32. *Usefulness of these principles for matters of piety and of religion.* For the rest, it seems that far from harming religion, the thoughts which we have just presented – particularly the great principle of the perfection of God's works and that of the concept of substance which includes all its experiences along with the circumstances under which they occur – serve rather to confirm it, to dissipate very great difficulties, to inflame souls with a divine love, and to elevate spirits to the knowledge of the incorporeal substances much better than do the hypotheses which we have seen until now. For it appears most clearly that all the other substances depend on God as our thoughts emanate from our substance, that God is all in all, that he is closely united with all his creatures, yet in proportion to their perfection, and that it is he alone who determines them from without through his influence. If to act means to determine immediately, then it can be said in this sense, in the language of metaphysics, that only God acts upon me and only he can do good or evil to me, all other substances contributing only in proportion to these determinations, since God, who takes them all into consideration, distributes his goodness and compels all substances to adjust themselves to each other. So only God, also, constitutes the link or communication between the substances, and it is through him that the phenomena of the one meet with and agree with those of the others and that consequently there is reality in our perceptions. In practice, however, action is attributed to particular reasons in the sense which I have explained above, because it is not necessary always to mention the universal cause in particular cases. We see also that every substance has a perfect spontaneity, which becomes freedom in the intelligent substances, that everything which happens to it is the result of its idea or its being, and that nothing determines it save God alone. It is for this reason that a person of exalted spirit, revered for her saintliness, was wont to say that the soul should often think as if only God and itself were in the world. Nothing can give us a stronger understanding of immortality than this independence and compass of the soul, which protects it absolutely from all external things, since it alone makes up its own world and is self-sufficient with God. And it is as impossible for the soul to perish, except by annihilation, as it is for the world (of which it is a living, perpetual expression) to destroy itself. It is therefore impossible that the changes in this extended mass which is called our body could affect the soul in any way, or that the decomposition of the body could destroy that which is indivisible.

33. *Explication of the relation of the soul to the body, a matter which has been regarded as inexplicable or as miraculous; and on the origin of confused perceptions.* We are thus unexpectedly brought to a clear insight into the great mystery of the union of body and soul, that is to say, how it happens that the passions and actions of the one are accompanied by the actions and passions, or their corresponding phenomena, in the other. For there is no way in which we can conceive of an influence³⁷ of the one on the other, and it is unreasonable simply to have recourse to the extraordinary operation of the universal cause in so ordinary and particular a thing. But the true principle is this: We

have said that everything which happens to the soul and to each substance follows from its concept; hence the idea itself, or the essence of the soul, carries with it that all its appearances or perceptions must arise spontaneously out of its own nature and in just such a way that they correspond, by themselves, to what happens in the entire universe but more particularly and more perfectly to what happens in the body which is assigned to it. For the soul expresses the state of the universe only in a particular way and at a definite time, according to the relation of other bodies to its own. This shows us also how our body belongs to us without being attached to our essence.³⁸ I believe that those who have the gift of meditation will judge favorably of our principles for the single reason that they will be able to realize easily in what consists the connection between the soul and the body, which seems inexplicable in any other way. We see also that our sense perceptions, even when they are clear, must necessarily contain a certain confused feeling, for, since all the bodies of the universe are in sympathy with each other, ours receives impressions from all the rest, and though our senses are in response to all of them, it is impossible for our soul to pay attention to every particular impression. This is why our confused sensations result from a really infinite variety of perceptions. This is somewhat like the confused murmur heard by those who approach the seashore, which comes from the accumulation of innumerable breaking waves. For if out of several perceptions which do not harmonize so as to make one, there is no single one which surpasses the others, and if these perceptions make impressions that are about equally strong and equally capable of holding the attention of the soul, it can perceive them only confusedly.

34. ³⁹ *On the difference between spirits and other substances, souls or substantial forms; that the immortality which is required includes memory.* Assuming that the bodies which make up a *unum per se*, for example man, are substances and that they have substantial forms, and assuming that beasts have souls, we must admit that these souls and substantial forms cannot entirely perish any more than can atoms or the ultimate parts of matter in the opinions of other philosophers. For no substance perishes, although it may become entirely different. Those substances, too, express the whole universe, although more imperfectly than do the spirits. But the chief difference is that they do not know what they are or what they do, and since, consequently, they cannot reflect, they are unable to discover necessary and universal truths. It is also because they lack reflection about themselves that they have no moral quality.⁴⁰ Hence, though animals may pass through a thousand transformations like that which we see when a caterpillar changes into a butterfly, yet from the moral or practical point of view the result is just as if they had perished; indeed, one may even say that they have perished in a physical sense, that is, in the sense in which we say that bodies perish through their corruption. But the intelligent soul, knowing what it is and being able to say this little word 'I' which means so much, not merely remains and subsists metaphysically (which it does in a fuller sense than the others) but also remains the same morally and constitutes the same character. For it is memory or the knowledge of this 'I' which makes it capable of punishment and reward. Likewise, the immortality which is demanded in morals and religion does not consist merely in this perpetual subsistence which is common to all substances, for without a memory of what one has been, there would be nothing desirable about it. Suppose some private man should suddenly become king of China, but only on condition that he forget what he had been, just as if he were being born anew; would it not be the same practically, or so far as discernible

effects are concerned, if he were annihilated and a king of China created at the same instant in his place? This particular man has no reason whatever to desire this.

35. *The excellence of spirits; that God considers them preferable to other creatures; that spirits express God rather than the world, while the other simple substances express the world rather than God.* But in order to support by natural reasons the view that God will preserve for all time not merely our substance but also our person, that is to say, the memory and knowledge of what we are (though the distinct knowledge is sometimes suspended in sleep and in fainting fits), we must add morals to metaphysics. That is to say, we must consider God, not only as the principle and cause of all substances and all beings, but also as the head of all persons or intelligent substances and as the absolute monarch of the most perfect city or state, such as is the universe composed of all the spirits together, God himself being the most perfect of all spirits, as well as the greatest of all beings. For certainly spirits are the most perfect of beings and those which best express the divine being. And since the whole nature, end, power, and function of substance is merely to express God and the universe, as we have explained at length, there is no reason to doubt that those substances which express him with a knowledge of what they are doing, and which are capable of knowing the great truths about God and the universe, express him better beyond all comparison than do those natures which are either brutish or incapable of knowing truth or entirely destitute of feeling and knowledge. Moreover, the difference between the intelligent substances and those which have no intelligence at all is just as great as that between a mirror and one who sees. And since God himself is the greatest and wisest of spirits, it is easy to understand that the beings with whom he can enter into conversation, so to speak, and even into a society, communicating his opinions and his will to them in a particular manner and in such a way that they can recognize and love their benefactor, must be infinitely nearer to him than all other things which can pass only for the instruments of spirits. So we see that all wise persons value man infinitely more highly than any other thing, no matter how precious, and it seems that the greatest satisfaction that a soul can have, which is content in other respects, is to see itself loved of others. However there is this difference with respect to God – the glory and the worship which we offer cannot add to his satisfaction, since the knowledge of creatures is only a result of his sovereign and perfect happiness, far from contributing to it or being a partial cause of it. However, whatever is good and reasonable in finite spirits is found pre-eminently in him. And just as we would praise a king who prefers to save the life of one man above that of his rarest and most precious animal, so we cannot doubt that the most enlightened and most just of all monarchs is of the same opinion.

36. *God is the monarch of the most perfect Republic consisting of all spirits, and the happiness of this City of God is his principal design.* Spirits are indeed the most perfectible of substances, and their perfections have the particular advantage of interfering with each other in the least possible degree, or rather of supporting each other, for only the most virtuous can be the most perfect friends. Hence it obviously follows that God, who always aims at the greatest general perfection, will have the greatest concern for spirits and will give to them, not only in general but to each one in particular, the greatest degree of perfection which the universal harmony can permit. It can even be said that God, insofar as he is a spirit, is the origin of existences, for otherwise, if he had lacked the will to choose the best, there would be no reason why one possible being should exist in preference to others. So this property of God's being himself a spirit

comes before all other considerations which he may have with regard to the creatures. Only spirits are made in his image and are, as it were, of his blood or like the children of his household, for only they can serve him freely and act with knowledge in imitation of the divine nature. One single spirit is worth a whole world, because it not only expresses the world but also knows it and conducts its life there after the manner of God. So it seems that though every substance expresses the whole universe, yet the other substances express the world rather than God, while the spirits express God rather than the world. This nature of spirits, so noble that they approach divinity as closely as is possible for simple creatures, brings it about that God derives infinitely more glory from them than from all the other beings or rather that the other beings merely provide spirits with matter for glorifying him. This is why this moral nature of God, which makes him the lord and monarch of spirits, is of a quite singular concern to God personally, if we may say so. It is in this relation that he humanizes himself, that he is willing to tolerate anthropomorphisms, and that he enters into a society with us, as a prince with his subjects. So dear is this consideration to him that the happy and flourishing state of his Empire, which consists in the greatest possible felicity of its inhabitants, becomes his highest law.⁴¹ For happiness is to persons what perfection is to beings. And if the highest principle ruling the existence of the physical world is the decree which gives it the greatest perfection possible, the highest purpose in the moral world, or the city of God which is the noblest part of the universe, should be to spread in it the greatest possible happiness. It must not be doubted, therefore, that God has ordered everything in such a way not only that spirits can live forever, which is inescapable but also that they shall forever preserve their moral status, in order that no person may be lost to the city, just as no substance is lost to the world. As a result they will always know what they are, otherwise they would be incapable of reward and punishment, both of which are essential in a republic and especially in the most perfect one where nothing can be overlooked. Finally, since God is at the same time the most just and the most benevolent of monarchs and demands only a good will, provided it be sincere and serious, his subjects cannot desire a better state. To make them perfectly happy, he asks only that they love him.

37. *Jesus Christ has revealed to men the mystery and the admirable laws of the Kingdom of Heaven and the grandeur of the supreme happiness which God prepares for those who love him.* The ancient philosophers knew very little about these important truths. Only Jesus Christ has expressed them divinely well and in a manner so clear and simple that the dullest spirits have grasped them. His gospel has thus entirely changed the aspect of human affairs; it has revealed to us the kingdom of heaven or that perfect republic of spirits which deserves the title of the city of God, the admirable laws of which he has revealed to us. He alone has made us see how much God loves us and with what exactness he has provided for all that concerns us; how God who cares for the sparrows will not neglect the reasonable creatures who are infinitely more dear to him; how all the hairs on our head are counted; how heaven and earth may pass away, but the word of God and all that pertains to the economy of our salvation shall endure; how God has more concern for the least of these intelligent souls than for the whole world-mechanism; how we ought not to fear those who can destroy bodies but cannot do any harm to the souls, since only God can make the souls happy or wretched; and how the souls of the righteous are protected by his hand against all the revolutions of the world, since nothing can act upon them save God alone; how none of

our acts is forgotten but everything is placed on account, even idle words and a well-used spoonful of water; finally, how everything works for the greatest good of those who are good, and the righteous shall be as suns, so that neither our sense nor our spirit has ever tasted anything approaching the happiness which God has prepared for those who love him.

REFERENCES

- ¹ Leibniz had been more specific in the original draft, writing 'les Spinozistes'. On Leibniz's grounds for connecting Descartes's voluntarism and mechanism with Spinoza see No. 31, I and II.
- ² "As a lesser evil is relatively good, so a lesser good is relatively evil."
- ³ In the original draft, "of the new Scholastics".
- ⁴ In the illustration originally added here, Leibniz used a geometrical example of the principle of the best possible or of maximal determination: "For example, there is an infinity of regular figures, but only one is the most perfect, the circle. If a triangle is to be made without any specification of the kind, God would certainly make an equilateral triangle, because it is the most perfect, absolutely speaking."
- ⁵ "To will the same thing and to dislike the same thing is true friendship."
- ⁶ Quietism is that extreme mystical doctrine according to which the soul, in surrendering itself to God, is emptied of its own desires and purposes and achieves a state of passive contemplation. The 17th-century movement was stimulated by the *Guida spirituale* (1675) of Miguel de Molinos, who died in the prison of the Inquisition in 1696. Among the leaders were Mme Guyon and Fénelon, whose *Explication des maximes des saints sur la vie intérieure* was a classic of the movement and a center of controversy, notably his own controversy with Bossuet.
- ⁷ Originally "the greatest perfection"; since pleasure is the perception of harmony or perfection, the two terms are psychologically and metaphysically analogical to each other.
- ⁸ Thus the principle of parsimony is equivalent to the principle of the best possible or of maximal determination.
- ⁹ In his *Treatise on Nature and Grace* Malebranche had restricted God's role in nature to the willing of general principles. See p. 295, note 8.
- ¹⁰ Originally Leibniz had added: "as well as the actions and passions of these creatures themselves".
- ¹¹ See Introduction, Sec. V, and p. 119, note 11. Note that individual substance and logical subject are united by Leibniz in the concept of *suppositum*.
- ¹² "That here every individual is an *infima species*" (see p. 271, note 7).
- ¹³ Reading *provenante*, in accordance with the first draft, rather than *prevenante*, as in G., IV, 434.
- ¹⁴ Paracelsus' doctrine of an *Archeus* was popularized by the elder Van Helmont (Jean Baptiste, 1577–1644), whom Leibniz seems to have associated with it (G., IV, 217). For Leibniz's earlier sources for similar doctrines see No. 3 and p. 104, note 20.
- ¹⁵ The phrase that followed in the first draft was: "that bodies are not substances in strict metaphysics (this was indeed the opinion of the Platonists), and...".
- ¹⁶ For the arguments for the relativity of space and time see the letters to Clarke (No. 71). They are phenomenal but not subjective in the sense of Berkeley and Hume, for they rest upon the well-ordered relationship of representational systems within existence which derive from the harmonious laws of the individual monads.
- ¹⁷ Identity of past, present, and future is thus assured by the continuity involved in the individual concepts of the monads. Reality which transcends the moment must be analogous to mind.
- ¹⁸ The question arises of the relation of this contingency in man's choices to the subordinate

regulations of nature discussed in Secs. 7 and 17. These regulations are abstractions from harmoniously serial laws possessing the same kind of contingency (or self-determination) as man's, though sometimes much simpler. The question may well be raised whether these subordinate regulations, therefore, have the ontological status which Leibniz has assigned to them or are not rather phenomenal.

¹⁹ How our judgments can be exempt from the determination of our acts by the law of our nature, Leibniz does not say.

²⁰ Solipsism and even a pluralism of island minds with private experiences are thus avoided, since it is a universal and common realm of meaning which we represent when we think. This Leibniz has shown in his earlier refutations of the arbitrariness of definitions and propositions (No. 17, etc.). This passage also shows the difference between Leibniz's a priorism and Kant's. Both find a region of universality and necessity as the basis for phenomena, and both derive intellectual activity from it, but Leibniz's conception is metaphysical from the beginning, in contrast to Kant's transcendentalism; the realm of universal and necessary truths is an absolute which serves as regulative of our experience rather than constitutive of it.

²¹ On Leibniz's notion of mass see p. 103, note 8. His concept of mass is clearer than in his early writings, however, being a quantitative measure of passive derivative force or inertia.

²² Leibniz here left a space in the manuscript to insert his paraphrase. His version may be found in G., VII, 335, or more briefly, in No. 37. See also p. 276, note 3.

²³ The reference is to the *Theory of Abstract Motion*, Sec. 20 (No. 8, I).

²⁴ See the *Tentamen anagogicum* (No. 49). The argument was first published in 'Unicum opticae, catoptricæ et dioptricæ principium', *Acta eruditorum* (1682).

²⁵ To the old argument between Aristotelians and the moderns as to the nature of life, the discoveries made possible by the microscope in the 17th century added new arguments for both sides. Descartes, influenced by Bacon and Harvey, was of course the chief philosophical authority for mechanism, which was confirmed by the analysis of various organic systems and their functions, such as the lymphatic and other glands, the lungs, and the pyramid cells in the brain. Leibniz's opinion mediates between this mechanism and the extreme vitalism of those like Cudworth and More, and later even Stahl, who introduced animistic principles (see E. Nordenskiöld, *The History of Biology*, New York 1929, chap. II).

²⁶ On the problem of the relation of Descartes's optics to Snell's, see Mach, *The Principles of Physical Optics* (trans. Anderson and Young) (1925), pp. 32-33.

²⁷ See Nos. 21 and 33 on the nature of ideas; also p. 271, notes 8, p. 295, notes 7 and 8.

²⁸ Deleted in the first draft: "When I know the possibility of a thing merely through experience, because everything that exists is possible, my knowledge is confused. It is thus that we know bodies and their qualities. But when I can prove the possibility a priori, this knowledge is distinct."

²⁹ Originally 'subsistent'. The two theories conform to Arnauld's conception of idea as the internal meaning of a perception and Malebranche's conception of an eternal object of our intellect.

³⁰ The Scholastic interpretation of impressed species as mediating between the object and the intellect had led to a material interpretation of them supported by Suárez (*De anima*, Book iii, chap. 1; Book iv, chap. 2) and others. The view had been criticized by Descartes and Hobbes and was discussed by Malebranche in the *Recherche*, III, Part II, chap. ii.

³¹ *Meno* 82c-f.

³² "The light which lightens every man that cometh into this world" (John 1:9).

³³ "The active intellect of the rational soul."

³⁴ Malebranche had restricted the activity of the soul to willing.

³⁵ "Whom, he foresaw, he would endow with faith.

³⁶ Cf. Rom. 8:28-30, 9:14-29, etc.

³⁷ See p. 83, note 6.

³⁸ Thus Leibniz does not regard the soul as the form or activating principle of the body but views their relation as external and determined by the universal harmony. This view is often confused, however, by statements that every composite body (sometimes every living body only) has a uniting and reifying soul.

³⁹ Originally Sec. 34 opened as follows: "I do not yet undertake to determine whether bodies are substances, speaking with metaphysical rigor, or whether they are only true phenomena like the rainbow; nor, as a result, whether there are substances, souls, or substantial forms which are not intelligent."

⁴⁰ Originally, "no character [*personnage*]".

⁴¹ Originally, "the highest of the subalternate laws of his conduct".