

Descartes on the eternal truths

from *The World*, chapter 7 (suppressed work written c. 1629–31)

I could set out many further rules here for determining in detail when, how, and by how much the motion of each body can be changed and increased or decreased by colliding with others—in sum, rules which comprehend in a concise way all the effects of nature. But I shall be content with telling you that apart from the three laws I have expounded, I do not wish to suppose any others but those which follow inevitably from the eternal truths on which mathematicians have usually based their most certain and most evident demonstrations—the truths, I say, according to which God himself has taught us that he has arranged all things in number, weight and measure. The knowledge of these truths is so natural to our souls that we cannot but judge them infallible when we conceive them distinctly, nor doubt that if God had created many worlds, they would be as true in each of them as in this one. Thus those who are able to examine sufficiently the consequences of these truths and of our rules will be able to recognize effects by their causes. To express myself in Scholastic terms, they will be able to have *a priori* demonstrations of everything that can be produced in this new world.

from letter to Mersenne, 15 April 1630

... However, in my treatise on physics I shall discuss a number of metaphysical topics and especially the following. The mathematical truths which you call eternal have been laid down by God and depend on him entirely no less than the rest of his creatures. Indeed to say that these truths are independent of God is to talk of him as if he were Jupiter or Saturn and to subject him to the Styx and the fates. Please do not hesitate to assert and proclaim everywhere that it is God who has laid down these laws in nature just as a king lays down laws in his kingdom. There is no single one that we cannot grasp if our mind turns to consider it. They are all inborn in our minds just as a king would imprint his laws on the hearts of all his subjects if he had enough power to do so. The greatness of God, on the other hand, is something which we cannot grasp even though we know it. But the very fact that we judge it beyond our grasp makes us esteem it the more greatly; just as a king has more majesty when he is less familiarly known by his subjects, provided of course that they do not get the idea that they have no king—they must know him enough to be in no doubt about that.

It will be said that if God had established these truths he could change them as a king changes his laws. To this the answer is: Yes he can, if his will can change. 'But I understand them to be eternal and unchangeable.'—I make the same judgement about God. 'But his will is free.'—Yes, but his power is beyond our grasp. In general we can assert that God can do everything that is within our grasp but not that he cannot do what is beyond our grasp. It would be rash to think that our imagination reaches as far as his power.

I hope to put this in writing, within the next fortnight, in my treatise on physics; but I do not want you to keep it secret. On the contrary I beg you to tell

people as often as the occasion demands, provided you do not mention my name. I should be glad to know the objections which can be made against this view; and I want people to get used to speaking of God in a manner worthier, I think, than the common and almost universal way of imagining him as a finite being.

from letter to Mersenne, 6 May 1630

As for the eternal truths, I say once more that they are true or possible only because God knows them as true or possible. They are not known as true by God in any way which would imply that they are true independently of him. If men really understood the sense of their words they could never say without blasphemy that the truth of anything is prior to the knowledge which God has of it. In God willing and knowing are a single thing in such a way that by the very fact of willing something he knows it and it is only for this reason that such a thing is true. So we must not say that if God did not exist nevertheless these truths would be true; for the existence of God is the first and the most eternal of all possible truths and the one from which alone all others proceed. It is easy to be mistaken about this because most people do not regard God as a being who is infinite and beyond our grasp, the sole author on whom all things depend; they stick at the syllables of his name and think it sufficient knowledge of him to know that 'God' means what is meant by *Deus* in Latin and what is adored by men. Those who have no higher thoughts than these can easily become atheists; and because they perfectly comprehend mathematical truths and do not perfectly comprehend the truth of God's existence, it is no wonder they do not think the former depend on the latter. But they should rather take the opposite view, that since God is a cause whose power surpasses the bounds of human understanding, and since the necessity of these truths does not exceed our knowledge, these truths are therefore something less than, and subject to, the incomprehensible power of God. What you say about the production of the *Word* does not conflict, I think, with what I say; but I do not want to involve myself in theology, and I am already afraid that you will think my philosophy too free-thinking for daring to express an opinion on such lofty matters.

from letter to Mersenne, 27 May 1630

You ask me by what kind of causality God established the eternal truths. I reply: by the same kind of causality as he created all things, that is to say, as their efficient and total cause. For it is certain that he is the author of the essence of created things no less than of their existence; and this essence is nothing other than the eternal truths. I do not conceive them as emanating from God like rays from the sun; but I know that God is the author of everything and that these truths are something and consequently that he is their author. I say that I know this, not that I conceive it or grasp it; because it is possible to know that God is infinite and all powerful although our soul, being finite, cannot grasp or conceive him. In the same way we can touch a mountain with our hands but we cannot put our arms around it as we could put them around a tree or something else not

too large for them. To grasp something is to embrace it in one's thought; to know something, it is sufficient to touch it with one's thought.

You ask also what necessitated God to create these truths; and I reply that he was free to make it not true that all the radii of the circle are equal—just as free as he was not to create the world. And it is certain that these truths are no more necessarily attached to his essence than are other created things. You ask what God did in order to produce them. I reply that from all eternity he willed and understood them to be, and by that very fact he created them. Or, if you reserve the word *created* for the existence of things, then he established them and made them. In God, willing, understanding, and creating are all the same thing without one being prior to the other even conceptually.

from *Objections and Replies*
(Reply to Fifth Set of Objections by Gassendi, 1641)

You say that you think it is 'very hard' to propose that there is anything immutable and eternal apart from God. You would be right to think this if I was talking about existing things, or if I was proposing something as immutable in the sense that its immutability was independent of God. But just as the poets suppose that the Fates were originally established by Jupiter, but that after they were established he bound himself to abide by them, so I do not think that the essences of things, and the mathematical truths which we can know concerning them, are independent of God. Nevertheless I do think that they are immutable and eternal, since the will and decree of God willed and decreed that they should be so. Whether you think this is hard or easy to accept, it is enough for me that it is true.

from *Objections and Replies* (Sixth Set of Objections, 1641)

The *eighth* difficulty arises out of your reply to the Fifth Set of Objections. How can the truths of geometry or metaphysics, such as those you refer to, be immutable and eternal and yet not be independent of God? What sort of causal dependence on God do they have? Could he have brought it about that there has never been any such thing as the nature of a triangle? And how, may we ask, could he have made it untrue from eternity that twice four makes eight, or that a triangle has three angles? Either these truths depend solely on the intellect that is thinking of them, or on existing things, or else they are independent, since it seems that God could not have brought it about that any of these essences or truths were not as they were from all eternity.

from *Objections and Replies* (Reply to Sixth Set of Objections, 1641)

6. As for the freedom of the will, the way in which it exists in God is quite different from the way in which it exists in us. It is self-contradictory to suppose that the will of God was not indifferent from eternity with respect to everything which has happened or will ever happen; for it is impossible to imagine that anything is thought of in the divine intellect as good or true, or worthy of belief or action or omission, prior to the decision of the divine will to make it so. I am not

speaking here of temporal priority: I mean that there is not even any priority of order, or nature, or of 'rationally determined reason' as they call it, such that God's idea of the good impelled him to choose one thing rather than another. For example, God did not will the creation of the world in time because he saw that it would be better this way than if he had created it from eternity; nor did he will that the three angles of a triangle should be equal to two right angles because he recognized that it could not be otherwise, and so on. On the contrary, it is because he willed to create the world in time that it is better this way than if he had created it from eternity; and it is because he willed that the three angles of a triangle should necessarily equal two right angles that this is true and cannot be otherwise; and so on in other cases. There is no problem in the fact that the merit of the saints may be said to be the cause of their obtaining eternal life; for it is not the cause of this reward in the sense that it determines God to will anything, but is merely the cause of an effect of which God willed from eternity that it should be the cause. Thus the supreme indifference to be found in God is the supreme indication of his omnipotence. But as for man, since he finds that the nature of all goodness and truth is already determined by God, and his will cannot tend towards anything else, it is evident that he will embrace what is good and true all the more willingly, and hence more freely, in proportion as he sees it more clearly. He is never indifferent except when he does not know which of the two alternatives is the better or truer, or at least when he does not see this clearly enough to rule out any possibility of doubt. Hence the indifference which belongs to human freedom is very different from that which belongs to divine freedom. The fact that the essences of things are said to be indivisible is not relevant here. For, firstly, no essence can belong univocally to both God and his creatures; and, secondly, indifference does not belong to the essence of human freedom, since not only are we free when ignorance of what is right makes us indifferent, but we are also free—indeed at our freest—when a clear perception impels us to pursue some object.

[...]

8. If anyone attends to the immeasurable greatness of God he will find it manifestly clear that there can be nothing whatsoever which does not depend on him. This applies not just to everything that subsists, but to all order, every law, and every reason for anything's being true or good. If this were not so, then, as noted a little earlier, God would not have been completely indifferent with respect to the creation of what he did in fact create. If some reason for something's being good had existed prior to his preordination, this would have determined God to prefer those things which it was best to do. But on the contrary, just because he resolved to prefer those things which are now to be done, for this very reason, in the words of Genesis, 'they are very good'; in other words, the reason for their goodness depends on the fact that he exercised his will to make them so. There is no need to ask what category of causality is applicable to the dependence of this goodness upon God, or to the dependence on him of other truths, both mathematical and metaphysical. For since the various kinds of cause were enumerated by thinkers who did not, perhaps, attend to this type of causality, it is hardly surprising that they gave no name to it. But in fact they did give it a name, for it can be called efficient causality, in the sense that a king may be called the efficient cause of a law, although the law itself is not a thing which has

physical existence, but is merely what they call a 'moral entity'. Again, there is no need to ask how God could have brought it about from eternity that it was not true that twice four make eight, and so on; for I admit this is unintelligible to us. Yet on the other hand I do understand, quite correctly, that there cannot be any class of entity that does not depend on God; I also understand that it would have been easy for God to ordain certain things such that we men cannot understand the possibility of their being otherwise than they are. And therefore it would be irrational for us to doubt what we do understand correctly just because there is something which we do not understand and which, so far as we can see, there is no reason why we should understand. Hence we should not suppose that eternal truths 'depend on the human intellect or on other existing things'; they depend on God alone, who, as the supreme legislator, has ordained them from eternity.

from "Conversation with Burman", 16 April 1648

'For it is impossible to imagine that anything is thought of in the divine intellect as good or true, or worthy of belief or action or omission, prior to the decision of the divine will to make it so.'

[Burman] But what then of God's ideas of possible things? Surely these are prior to his will.

[Descartes] These too depend on God, like everything else. His will is the cause not only of what is actual and to come, but also of what is possible and of the simple natures. There is nothing we can think of or ought to think of that should not be said to depend on God.

[Burman] But does it follow from this that God could have commanded a creature to hate him, and thereby made this a good thing to do?

[Descartes] God could not now do this: but we simply do not know what he could have done. In any case, why should he not have been able to give this command to one of his creatures?

from *The Principles of Philosophy*, Part One (1644)

48. *All the objects of our perception may be regarded either as things or affections of things, or as eternal truths. The former are listed here.*

All the objects of our perception we regard either as things, or affections of things, or else as eternal truths which have no existence outside our thought. The most general items which we regard as things are *substance, duration, order, number* and any other items of this kind which extend to all classes of things. But I recognize only two ultimate classes of things: first, intellectual or thinking things, i.e. those which pertain to mind or thinking substance; and secondly, material things, i.e. those which pertain to extended substance or body....

49. *It is not possible—or indeed necessary—to give a similar list of eternal truths.*

Everything in the preceding list we regard either as a thing or as a quality or mode of a thing. But when we recognize that it is impossible for anything to

come from nothing, the proposition *Nothing comes from nothing* is regarded not as a really existing thing, or even as a mode of a thing, but as an eternal truth which resides within our mind. Such truths are termed common notions or axioms. The following are examples of this class: *It is impossible for the same thing to be and not to be at the same time; What is done cannot be undone; He who thinks cannot but exist while he thinks*, and countless others. It would not be easy to draw up a list of all of them; but nonetheless we cannot fail to know them when the occasion for thinking about them arises, provided that we are not blinded by preconceived opinions.

50. *Eternal truths are clearly perceived; but, because of preconceived opinions, not all of them are clearly perceived by everyone.*

In the case of these common notions, there is no doubt that they are capable of being clearly and distinctly perceived; for otherwise they would not properly be called common notions. But some of them do not really have an equal claim to be called 'common' among all people, since they are not equally well perceived by everyone. This is not, I think, because one man's faculty of knowledge extends more widely than another's, but because the common notions are in conflict with the preconceived opinions of some people who, as a result, cannot easily grasp them. But the selfsame notions are perceived with the utmost clarity by other people who are free from such preconceived opinions.

[...]

75. *Summary of the rules to be observed in order to philosophize correctly.*

In order to philosophize seriously and search out the truth about all the things that are capable of being known, we must first of all lay aside all our preconceived opinions, or at least we must take the greatest care not to put our trust in any of the opinions accepted by us in the past until we have first scrutinized them afresh and confirmed their truth. Next, we must give our attention in an orderly way to the notions that we have within us, and we must judge to be true all and only those whose truth we clearly and distinctly recognize when we attend to them in this way. When we do this we shall realize, first of all, that we exist in so far as our nature consists in thinking; and we shall simultaneously realize both that there is a God, and that we depend on him, and also that a consideration of his attributes enables us to investigate the truth of other things, since he is their cause. Finally, we will see that besides the notions of God and of our mind, we have within us knowledge of many propositions which are eternally true, such as 'Nothing comes from nothing'. We shall also find that we have knowledge both of a corporeal or extended nature which is divisible, moveable, and so on, and also of certain sensations which affect us, such as the sensations of pain, colours, tastes and so on (though we do not yet know the cause of our being affected in this way). When we contrast all this knowledge with the confused thoughts we had before, we will acquire the habit of forming clear and distinct concepts of all the things that can be known. These few instructions seem to me to contain the most important principles of human knowledge.

from letter to Mesland, 2 May 1644

I turn to the difficulty of conceiving how God would have been acting freely and indifferently if he had made it false that the three angles of a triangle were equal to two right angles, or in general that contradictories could not be true together. It is easy to dispel this difficulty by considering that the power of God cannot have any limits, and that our mind is finite and so created as to be able to conceive as possible the things which God has wished to be in fact possible, but not be able to conceive as possible things which God could have made possible, but which he has nevertheless wished to make impossible. The first consideration shows us that God cannot have been determined to make it true that contradictories cannot be true together, and therefore that he could have done the opposite. The second consideration assures us that even if this be true, we should not try to comprehend it, since our nature is incapable of doing so. And even if God has willed that some truths should be necessary, this does not mean that he willed them necessarily; for it is one thing to will that they be necessary, and quite another to will this necessarily, or to be necessitated to will it. I agree that there are contradictions which are so evident that we cannot put them before our minds without judging them entirely impossible, like the one which you suggest: 'that God might have brought it about that his creatures were independent of him'. But if we would know the immensity of his power we should not put these thoughts before our minds, nor should we conceive any precedence or priority between his intellect and his will; for the idea which we have of God teaches us that there is in him only a single activity, entirely simple and entirely pure. This is well expressed by the words of St Augustine: 'They are so because thou see'st them to be so'; because in God *seeing* and *willing* are one and the same thing.

from letter to Arnauld, 29 July 1648

6. The difficulty in recognizing the impossibility of a vacuum seems to arise primarily because we do not sufficiently consider that nothing can have no properties; otherwise, seeing that there is true extension in the space we call empty, and consequently all the properties necessary for the nature of body, we would not say that it was wholly empty, that is, mere nothingness. Secondly, it arises because we have recourse to the divine power: knowing this to be infinite, we attribute to it an effect without noticing that the effect involves a contradictory conception, that is, is inconceivable by us. But I do not think that we should ever say of anything that it cannot be brought about by God. For since every basis of truth and goodness depends on his omnipotence, I would not dare to say that God cannot make a mountain without a valley, or bring it about that 1 and 2 are not 3. I merely say that he has given me such a mind that I cannot conceive a mountain without a valley, or a sum of 1 and 2 which is not 3; such things involve a contradiction in my conception. I think the same should be said of a space which is wholly empty, or of an extended piece of nothing, or of a limited universe; because no limit to the world can be imagined without its being understood that there is extension beyond it; and no barrel can be conceived to be so empty as to have inside it no extension, and therefore no body; for wherever extension is, there, of necessity, is body also.