NOTES AND STUDIES

ARGUMENTS FOR THE EXISTENCE OF GOD. I

FROM the time of Plato at latest learned men in Europe have excogitated a considerable number of arguments which have the following feature in common, viz. that they would be described as 'professing to prove the existence of God'. I purposely delimit the class of arguments which I have in mind by this purely verbal description because the word 'God' has been used in so many different senses by different thinkers. It is doubtful whether there is anything common and peculiar to all these arguments except that the conclusions of all of them are stated in the verbal form 'God exists' or in a translation of this into Greek or Latin or some other tongue.

The object of the present paper is to classify these arguments and then to discuss in some detail a selected few of them. The selection will be made in respect of philosophical interest or historical importance, and the arguments chosen will be discussed with a view to determining what precisely they would prove, if they were valid, and whether they are in fact valid. An argument may fail to prove its conclusion either through its premisses being doubtful or through its structure being logically defective. Nevertheless, the persons who employed it may have had something of importance at the back of their minds, and the criticism which shews the argument to be invalid may incidentally separate this grain of wheat from the chaff which has surrounded it.

Classification of the Arguments. I begin with a very external and superficial division of these theistic arguments, viz. into those which are closely bound up with the peculiar doctrines of some particular philosophic system and those which are not. An example of the former is Berkeley's argument that God must exist in order to cause those bundles and sequences of correlated sensations which plain men mistakenly believe to be manifestations of material things. I shall neglect these highly special arguments and confine myself henceforth to more general ones which have been very widely used and accepted.

We may divide up the latter arguments, to begin with, in accordance with the nature of their premisses. This gives the following three classes: (1) Arguments whose premisses include neither specifically ethical nor specifically religious propositions; (2) Arguments whose premisses include specifically ethical but not specifically religious propositions; (3) Arguments whose premisses include specifically religious propositions.

The first class may be subdivided into (1·1) arguments which do *not*, and (1·2) those which *do*, use an existential premiss, i.e. a proposition of the form *So-and-so exists*. There is one and only one argument which does not use an existential premiss. This is the famous *Ontological Argument*, invented by St Anselm of Canterbury. Arguments which do use an existential premiss always employ also some form of the notion of causation. For the only way in which one can infer that X exists from the fact that Y exists is by shewing that the existence of X is a necessary condition for the existence of Y. These latter arguments fall into two sub-classes, according to the nature of the existential premiss that they use. These are (1·21) arguments which use only the highly indeterminate premiss *Something or other exists*, and (1·22) those which use a more determinate premiss of the form *Something having such and such a nature exists*. It is plain that a premiss of the latter kind is needed if one is to prove the existence of anything with assignable non-formal properties, i.e. properties beside those of existing, being a substance, being a cause, and so on. There is one argument in each of these classes. That which starts from the indeterminate existential premiss is called the *Cosmological Argument*. It goes back at least to Aristotle, and it is accepted by St Thomas, Descartes, Leibniz, Locke, and many other philosophers. The argument which starts from determinate existential premisses about the nature and inter-relations of actual things is called the *Argument from Design* or the *Physico-theological Argument*. These are the three arguments of what Kant calls 'Speculative Theology'.

I do not know of any systematic way of subdividing the arguments with ethical but without religious premisses or the arguments with specifically religious premisses. So we will leave our classes (2) and (3) undivided.

Before leaving the subject of classification I wish to call attention to the following question. Let us suppose that several of these arguments, e.g. the Cosmological Argument, the Argument from Design, and the Argument from Religious Experience, turned out to be valid, in the sense that each of them established the existence of *something* which, in one sense or another of the word 'God', could be called 'God'. What would be the relation between the conclusions of these various valid arguments? I think that it is commonly and uncritically assumed that they would all establish the existence of *the same* something; and that, from the evidential standpoint, they would be like so many strings, each attached to a different hook, and all co-operating to support a single weight. It is assumed that the differences in the conclusions would reduce to the fact that some supply us with more determinate information than do others about the common object

whose existence they all conspire to establish, or that one reveals one aspect and others reveal other aspects of this common object. Now this assumption may be correct, but we have no right whatever to make it uncritically. In view of the extreme ambiguity of the word 'God' and the extreme variety of the premisses and the modes of reasoning in the several types of theistic argument, it would seem to me that there is a strong presumption against any such identification. If, e.g., two such utterly different arguments as the Cosmological Argument and the Argument from Design both establish the existence of something that can be called 'God', it seems most likely that they establish the existence of two different 'Gods', one a ground and not a designer, and the other a designer and not a ground, of the rest of the universe. Any one who claims to identify the two should be expected to bring forward strong positive evidence for doing so. Unless such an identification can be justified, the various arguments cannot be regarded as corroborating each other. They will be like so many different strings, each acting as the sole support of a different weight.

I will now consider some of the arguments in detail, and I will begin with

(1·1) *The Ontological Argument.* This argument presupposes the notion of degrees of 'reality' or 'perfection'. This notion is never clearly defined, but it seems to amount roughly to the following. *A* would be said to have 'more reality' or 'a higher degree of perfection' than *B*, if either of the two following conditions were fulfilled. (i) *A* has all the positive powers and qualities which *B* has and, in addition, it has some which *B* lacks. (When this condition is fulfilled we will say that *A* is '*extensively* superior to *B*'.) (ii) *A* is either extensively equal or extensively superior to *B*; some of the positive qualities or powers which are common to both are present in *A* with a higher degree of intensity than in *B*; and none of them are present in *B* with a higher degree of intensity than in *A*. (When this condition is fulfilled we will say that *A* is '*intensively* superior to *B*'.)

Now the first thing to notice is that these two criteria do not allow us, even in theory, to arrange everything in a single scale of perfection. Plainly the following cases are logically possible. (i) It might be that *A* has some powers or qualities which *B* lacks, and that *B* has some which *A* lacks. Cats, e.g., can climb trees, whilst dogs cannot; but dogs can track by scent, whilst cats cannot. In that case *A* is neither extensively superior, nor equal, nor inferior, to *B*. Now the criterion for intensive superiority presupposes extensive equality or superiority between the terms to be compared. Therefore, in the case supposed, there can be no comparison between *A* and *B* in respect of either extensive or intensive perfection. (ii) *A* might be extensively superior

to *B* and intensively inferior. (iii) *A* and *B* might be extensively equal. But some of their common powers or qualities might be present in *A* with greater intensity than in *B*, whilst others of them might be present in *B* with greater intensity than in *A*. Let us suppose, e.g., that the minds of any two human beings are extensively equal. How are we to compare, in respect of intensive perfection, a mathematical genius of very slight musical capacity with a musical genius of very slight mathematical capacity?

These considerations are highly relevant to the Ontological Argument; for it uses the phrase 'most perfect being', and it presupposes that this is not meaningless verbiage like the phrase 'greatest integer'. In accounts of the Ontological Argument one finds the phrase 'most perfect being' translated in two different ways, one comparative and the other positive. The comparative interpretation makes it equivalent to the phrase 'a being such that nothing more perfect than it is logically possible'. The positive interpretation makes it equivalent to the phrase 'a being which has all positive powers and qualities to the highest possible degree'. Now, as Leibniz noted, it becomes very important at this point to consider whether all positive characteristics are mutually compatible, i.e., whether it is possible for them all to co-inhere in a common subject. Let us consider how this affects the two interpretations of the phrase 'most perfect being'.

(i) Evidently, unless all positive characteristics are mutually compatible, the positive interpretation becomes meaningless verbiage. Suppose, e.g., that it is impossible for an extended substance to be conscious and impossible for a conscious substance to be extended, then it is impossible that there should be a substance which has all the positive properties that there are. The phrase 'a being which has all positive powers and qualities' would be meaningless verbiage like the phrase 'a surface which is red and blue all over at the same time'.

(ii) How would the comparative interpretation of the phrase 'most perfect being' fare on the same supposition, viz. that not all positive properties are compatible with each other? Let us suppose, e.g., that there were just three positive properties X, Y, and Z; that any two of them are compatible with each other; but that the presence of any two excludes the remaining one. Then there would be *three* possible beings, viz. one which combines X and Y, one which combines Y and Z, and one which combines Z and X, *each* of which would be such that nothing extensively superior to it is logically possible. For the only kind of being which would be extensively superior to any of these would be one which had all three properties, X, Y, and Z; and, by hypothesis, this combination is logically impossible. Moreover, these three beings, each of which answers to the comparative definition of

a 'most perfect being' so far as concerns extensive perfection, would be incomparable with each other in this respect. For, if you take any two of them, e.g. XY and YZ, each has a positive property which the other lacks. Now the Ontological Argument talks, not merely of 'most perfect beings', but of '*the* MOST PERFECT BEING'. It is now plain that, unless all positive properties be compatible with each other, this phrase is just meaningless verbiage like the phrase 'the greatest integer'.

(iii) Let us now make the opposite supposition, viz. that all positive properties are mutually compatible. Then it is easy to see that nothing could answer to the comparative definition of 'most perfect being' unless it answered to the positive definition of that phrase. For consider any substance which had some but not all of the positive properties. Since all positive properties are now assumed to be compatible with each other, it is logically possible that there should be a substance which should have all the properties which the one under consideration *has*, together with the remaining ones which it *lacks*. This would be extensively superior to the one under consideration, and therefore the latter would not answer to the comparative definition of a 'most perfect being'.

(iv) I have now shewn (*a*) that the phrase 'the most perfect being' is meaningless unless all positive properties be compatible with each other; and (*b*) that, if they be all mutually compatible, nothing could answer to the comparative interpretation of the phrase unless it answered to the positive interpretation thereof. The next point to notice is that, even if all positive properties be mutually compatible, the phrase 'most perfect being' may still be meaningless verbiage. For we have now to attend to that part of the positive interpretation of the phrase which we have hitherto ignored, viz. that each positive property is to be present in the highest possible degree. Now this will be meaningless verbiage unless there is some *intrinsic* maximum or upper limit to the possible intensity of every positive property which is capable of degrees. With some magnitudes this condition is fulfilled. It is, e.g., logically impossible that any proper fraction should exceed the ratio 1/1; and again, on a certain definition of 'angle', it is logically impossible for any angle to exceed four right angles. But it seems quite clear that there are other positive properties, such as length or temperature or pain, to which there is no intrinsic maximum or upper limit of degree.

For these reasons it seems to me fairly certain that the Ontological Argument is wrecked before ever it leaves port. However, we will waive these objections and consider the argument itself. I will try to state it as plausibly as I can. It might be put as follows: 'Anything

that lacked existence would lack a positive property which it might conceivably have had. Nothing which lacked a positive property which it might conceivably have had would be a most perfect being; for it is logically possible that there should be something superior to it, viz. a being which resembled it in all other respects but had the additional property of existence. Therefore no most perfect being would lack existence. Therefore all most perfect beings exist.'

Let us now consider this argument. It has two steps, viz. a syllogism followed by an immediate inference. There is nothing wrong with the syllogism in respect of its verbal form. It is verbally of the form 'Anything that lacked P would lack M. Nothing that lacked M would be S. Therefore no S would lack P.' This breaks none of the rules; it is in fact a slightly disguised form of the valid fourth-figure syllogism *Camenes*. The second step looks like a generally accepted form of immediate inference, viz. Obversion. But at this point there is a serious risk of a fallacy. The verbal form 'All S is P' is ambiguous. It may mean simply 'If anything were S it would be P', or, what is equivalent, 'Anything that was S would be P'. Interpreted in this way, it leaves the question whether anything *in fact is* S quite open. We will call this the 'conditional' interpretation. On the other hand, it is much more often taken to mean 'There are some S's and none of them lack P'. This may be called the 'instantial' interpretation. Now it is a general principle of logic that it is always illegitimate to draw an instantial conclusion from premisses which are wholly conditional. Let us now apply these principles to the second step of the argument.

The two premisses of the syllogism are purely conditional. Therefore the conclusion must be interpreted purely conditionally if the syllogism is to be valid. So the conclusion of the syllogism must be taken to be 'If anything were a most perfect being it would not lack existence'. Now all that can be legitimately inferred from this by obversion is the conditional proposition 'If anything were a most perfect being it would exist'. If you interpret the sentence 'All most perfect beings exist' in this way, the conclusion follows from the premisses but is completely trivial and useless. If, on the other hand, you interpret it instantially, i.e. take it to mean 'There are most perfect beings and none of them lack existence', there are two fatal criticisms to be made. (i) You are attempting to draw an instantial conclusion from purely conditional premisses and therefore are committing a logical fallacy. (ii) The sentence as a whole is pleonastic. It is idle to add 'none of them lack existence' to 'there are so-and-so's', whether the so-and-so's be most perfect beings or potatoes or dragons.

Let us now consider the syllogism itself. As I have said, it is correct in verbal form. Nevertheless, as I shall now proceed to shew, it is radically vicious. Its defect is, not that its premisses are false, but that they are meaningless. They are sentences which seem, from their verbal form, to express propositions; but in fact they express nothing whatever. The argument presupposes that existence is a quality or power, like extension or consciousness or life; it assumes that there is sense in talking of a comparison between a non-existent term and an existent term; and it produces the impression that this is like comparing two existing terms, e.g. a corpse and a living organism, one of which lacks life and the other of which has it.

Now all this is nonsensical verbiage. It is intelligible to make a *categorical* comparison between two actual existents, e.g. Hitler and Stalin, in respect of their qualities and powers. It is intelligible to take a description of a merely possible existent, e.g. a creature with a horse's body and a man's head, and to make a *conditional* comparison with an actual existent. It is, e.g., intelligible to say 'If a centaur existed (or, if there were a centaur), it would be swifter than any actual man and more rational than any actual horse'. Lastly, it is intelligible to take descriptions of two merely possible existents, and to make a doubly conditional comparison. It is, e.g., intelligible to say 'If centaurs existed and unicorns existed (or, if there were centaurs and unicorns), the former would be superior (or inferior) to the latter in such and such respects'. Now the Ontological Argument professes to make a *categorical* comparison between a non-existent and an existent in respect of the presence or absence of *existence*. The objection is twofold. (i) No comparison can be made between a non-existent term and anything else except on the hypothesis that it exists. And (ii) on this hypothesis it is meaningless to compare it with anything in respect of the presence or absence of *existence*.

It is evident, then, that the Ontological Argument must be rejected. Probably most people feel that there is something wrong with it; but the important and interesting and not too easy task is to put one's finger on the precise points at which it goes wrong. When a fallacious argument has seemed cogent to many people of the highest intelligence, such as St Anselm, Descartes, and Leibniz, it is desirable to supplement the refutation of it by an attempt to explain the causes of its plausibility. I believe that there are two causes, in the present case; and I will now proceed to exhibit them.

(i) The first and most important cause of the illusion is the fact that existential propositions and characterizing propositions are expressed by sentences which have the same grammatical form. Thus, e.g., existential propositions are expressed by such sentences as 'S

exists' or 'S is real', while characterizing propositions are expressed by such grammatically similar sentences as 'S eats' or 'S is red'. This linguistic fact tempts people to assume uncritically that existential propositions are *logically* of the same form as characterizing propositions. This uncritical assumption makes the Ontological Argument seem plausible. But it is certainly false, as can easily be shewn. The demonstration of this fact may be put as follows.

Let us begin with the two negative propositions *Cats do not bark* and *Dragons do not exist*. It is obvious that the first is about cats. But, if the second be true, it is certain that it cannot be about dragons; for there will be no such things as dragons for it to be about. The first might be expressed, on the conditional interpretation, by the sentence 'If there were any cats, none of them would bark'. On the instantial interpretation it might be expressed by the sentence 'There are cats, and none of them bark'. Suppose you try to express the negative existential proposition in the same way. On the first alternative it would be expressed by the sentence 'If there were any dragons, none of them would exist'. On the second alternative it would be expressed by the sentence 'There are dragons, and none of them exist'. Both these sentences are self-contradictory and meaningless. So, if you try to analyse negative existential propositions in the same way as negative characterizing propositions, you will find that they are all self-contradictory. But it is plain that *Dragons do not exist* is *not* self-contradictory. It is not only logically possible but is almost certainly true.

Now consider the two affirmative propositions *Cats scratch* and *Cats exist*. On the conditional interpretation the former would be expressed by the sentence 'If there were any cats, none of them would fail to scratch'. On the instantial interpretation it would be expressed by the sentence 'There are cats, and none of them fail to scratch'. Suppose you try to express the affirmative existential proposition in the same way. On the first alternative it would be expressed by the sentence 'If there were any cats, none of them would fail to exist'. On the second alternative it would be expressed by the sentence 'There are cats, and none of them fail to exist'. Now both these sentences are mere platitudes. So, if you try to analyse affirmative existential propositions in the same way as affirmative characterizing propositions, you will find that they are all platitudes. But it is plain that *Cats exist* is not a mere platitude. It is a substantial proposition which might very well be doubted by a person who had never seen a cat. So it is certain that existential propositions need a different kind of analysis.

The right analysis, as is now well known, is somewhat as follows.

These propositions are not about cats or dragons, i.e. about *things* which have the cat-characteristics or the dragon-characteristics. They are about these *characteristics* themselves. What they assert is that these characteristics do apply to something or that they do not apply to anything, as the case may be. 'Cats exist' is equivalent to 'The defining characteristics of the word "cat" apply to something'. Again 'Dragons do not exist' is equivalent to 'The defining characteristics of the word "dragon" do not apply to anything'. Suppose, e.g., that a 'dragon' is defined as a reptile which flies and breathes fire. Then the statement that dragons do not exist is equivalent to the statement that nothing combines the three properties of being a reptile, of flying, and of breathing fire. Such statements are neither tautologies nor contradictions.

It only remains to apply this analysis to statements about the existence or non-existence of a most perfect being. To say that a most perfect being exists is equivalent to saying that something has all positive characteristics to the highest possible degree. For reasons which I have given, it seems likely that this is not only false but also self-contradictory and nonsensical. To say that a most perfect being does not exist is equivalent to saying that nothing has all positive characteristics to the highest possible degree. For the same reasons it seems likely that this is not only true but a truism.

(ii) I strongly suspect that another linguistic fact about the use of the word 'exist' has helped to make the Ontological Argument seem evident truth instead of meaningless nonsense. It is not uncommon to say, of a person or animal who has died, that he has 'ceased to exist'. Now in this case there is something visible and tangible left, viz. the corpse, which can be compared with the person or animal as he was before he died. Moreover, it is obvious that a living organism is more perfect than a corpse. This leads people to think of existence as a positive characteristic which can be added to or subtracted from a thing, and whose presence makes a thing more perfect than it would have been without it. But, in the sense of 'existence' required for the Ontological Argument, a corpse exists as much as a living organism. So this linguistic fact does nothing to *justify* the speculations which it *encourages*.

(1·2) *The Cosmological Argument.* This argument goes back, historically, to a physical argument of Aristotle's about motion. Aristotle's attempt to prove that there must be an unmoved cause of motion is of considerable interest, but, for the present purpose, it seems more profitable to consider the argument in a less specialized form. It may be put as follows.

It starts with the premiss that there are particular things, persons,

events, &c. Each of us, e.g., can take himself as an indubitable instance of a particular person and can take any one of his present experiences as an indubitable instance of a particular event. Now any thing or person begins to exist at a particular time and place, lasts for a longer or shorter period, and then ceases to exist. Similarly, any event in the history of a thing or person begins at a certain time. Now the coming into existence of a thing or person of such and such a kind at a certain time and place is felt to need explanation. Similarly the occurrence, at a certain date in the history of a thing or person, of a change of such and such a kind is felt to need explanation. The first move is to try to explain it by reference to previously existing things or persons (such as parents) and by reference to earlier events. We will call this 'explanation in terms of ordinary causation'. Now this kind of explanation is, in one respect, never completely satisfactory. This is for two reasons. The first is that such explanations always involve a reference to *general laws* as well as to particular things, persons, and events. Now the general laws are themselves just brute facts, with no trace of self-evidence or intrinsic necessity about them. The second and more obvious reason is the following. The earlier things, persons, and events, to which you are referred by explanation in terms of ordinary causation, stand in precisely the same need of explanation as the thing or person or event which you set out to explain. It is obvious from the nature of the case that no extension of this kind of explanation to remoter and remoter depths of past time has the slightest tendency to remove this defect.

Before continuing the argument I would point out that nothing that has been said casts any doubt on the theoretical interest or the practical importance of explanation in terms of ordinary causation. When we 'explain' in this way we are learning more and more about the inter-connexions of things and events in time and space. Moreover, by learning these facts, we are enabled to acquire more extensive control over nature, to make new kinds of substances, and to modify the course of future events.

We can now go on with the argument. It is alleged that we can conclude, from the negative facts already stated, that there must be a substance which is neither a part of nature nor nature as a collective whole. And we can conclude that there is another kind of dependence, which is not the ordinary dependence of a later state of affairs on an earlier one in accordance with *de facto* rules of sequence. The existence of this non-natural substance must be intrinsically necessary. And the existence of all natural events and substances must be dependent upon the existence of this non-natural substance by this non-natural kind of dependence.

Let us now consider whether this argument is valid. It may be divided into two parts, negative and positive. At the transition from the negative to the positive part there is a suppressed premiss. My criticism will be as follows. (i) I accept the negative part of the argument. (ii) The suppressed premiss, which forms the transition from the negative to the positive part, seems to me to be false. Therefore I see no reason to accept the conclusion. (iii) I suspect that the conclusion is not only unproven but is either false or meaningless. I will now develop these statements.

(i) What kind of explanations do completely satisfy the human intellect? The human intellect is completely satisfied with a proposition when either (*a*) the proposition is seen to be intrinsically necessary by direct inspection of its terms, or (*b*) it is seen to follow by steps, each of which is seen to be intrinsically necessary, from premisses which are all seen to be intrinsically necessary. This kind of complete intellectual satisfaction is reached in pure mathematics and hardly anywhere else. Now it is quite certain that no explanation in terms of ordinary causation is capable of giving this kind of satisfaction to the intellect. For no causal law has any trace of self-evidence, and no premiss to the effect that such and such things existed or that such and such events happened in the past has any trace of self-evidence. The causal explanations of science are useful for predicting and controlling the future, for reconstructing the past, and for learning about what is remote in distance or minute in size. But they provide no explanation of anything in the sense in which the proof of a proposition in pure mathematics does provide a completely satisfactory explanation of the mathematical fact asserted by that proposition.

Now it is logically possible that complete intellectual satisfaction should be obtained about natural events and substances if and only if the following conditions were fulfilled. (*a*) If there were one or more existential propositions which are intrinsically necessary, like mathematical axioms. And (*b*) if all other true existential propositions followed with strict logical necessity from these, combined, perhaps, with certain intrinsically necessary universal premisses. Suppose that these conditions were fulfilled; and suppose, further, that there were a man who *actually knew* these intrinsically necessary premisses and *actually saw* in detail that they entail, e.g., the existence at a certain time and place of a person answering to the description of the historical Julius Caesar. Then he would *actually enjoy* complete intellectual satisfaction about the existence of Julius Caesar.

I therefore accept so much as follows of the Cosmological Argument. I admit that no explanation in terms of ordinary causation is capable of giving that kind of intellectual satisfaction about natural things and

persons and events which is obtainable about purely mathematical facts. And I admit that, if the universe is such that this kind of intellectual satisfaction is theoretically obtainable about nature, then its structure must be very much as philosophic Theism says that it is.

(ii) The Cosmological Argument claims to prove a categorical proposition, viz. that the universe has this structure. In order to do so it must add a categorical premiss to the hypothetical proposition which I have just admitted. It is plain that this categorical premiss is the proposition that the universe *is* such that this kind of intellectual satisfaction about natural things, persons, and events is, at least in theory, obtainable. This, then, is the suppressed premiss of the argument. Is there any reason to accept it?

We must not unfairly exaggerate what it claims. It is not asserted that any human being ever will in fact enjoy this kind of intellectual satisfaction about nature as a whole or about a single natural thing or person or event. All that is asserted is that the universe is such that a mind, which worked on the same general principles as ours but had indefinitely greater knowledge of detail and power of seeing logical connexions and keeping them before it without confusion, would find every fact about nature perfectly intelligible, in the sense in which everything in pure mathematics is perfectly intelligible to the mathematician. Now I do not see the least reason to believe this. Plainly it is not the kind of premiss for which there is or could be any empirical evidence. Nor is it self-evident or deducible from any premisses which are self-evident. Wherever we have this kind of completely satisfactory insight we are dealing with the formal relations of abstract entities, such as numbers or propositions, and not with the existence or the non-formal properties of particulars. There is no reason whatever to think that this kind of rational insight is possible in the latter case.

(iii) I think that we can go much farther than this in the negative direction. We have seen that an indispensable condition, without which it is logically impossible for nature to be capable of satisfying the intellect in the sense defined, is that there should be some intrinsically necessary existential propositions. Now, in criticizing the Ontological Argument, we saw that 'So-and-so exists' is equivalent to 'There is something which has such and such a set of characteristics', where this set of characteristics constitutes the definition or description of a certain possible object. Therefore an intrinsically necessary existential proposition would be of the form 'There *must be* something which has the characteristics x, y, z, &c.', where this set of characteristics constitutes the definition or description of a certain possible object. Or, to put it the other way round, 'The set of characteristics, x, y, z, &c., *must* together belong to something'.

Now it seems to me evident that there can be no intrinsically necessary propositions of this kind. Necessary propositions are always about the connexion (or disconnexion) of one *attribute* with another *attribute* or one *proposition* with another *proposition*, and they are always *conditional*. They are always of the form 'If anything had the attribute x, it would necessarily have the attribute y', or 'If p were true, then q would be true'. If I am right on this point, it follows that the conclusion of the Cosmological Argument is not only unproven but is false. And it follows that the suppressed premiss of the argument is false. That is, we can be quite certain that the universe cannot be of such a structure that the kind of intellectual satisfaction which is possible in pure mathematics might conceivably be attained about the things and persons and events of nature.

Even if this objection be waived, an equally formidable one remains. Let us suppose, for the sake of argument, that the suppressed premiss is true. Then I think it is easy to shew that, even if there were an existent or existents whose existence is intrinsically necessary, this would not in the least help to make nature theoretically intelligible in the sense required. The difficulty is as follows. Anything whose existence was a necessary consequence of its nature would be a *timeless* existent. If a certain set of attributes is such that it *must* belong to something, it is nonsensical to talk of its beginning to belong to something at any date, however far back in the past. It would be like talking of a date at which equilateral triangles began to be equiangular. Now nature is composed of things and persons and processes which begin at certain dates, last for so long, and then cease. But how could a *temporal* fact, such as the fact that there began to be a person having the characteristics of Julius Caesar at a certain date, follow logically from facts all of which are *non-temporal*? Surely it is perfectly obvious that the necessary consequences of facts which are necessary are themselves necessary, and that the necessary consequences of facts which have no reference to any particular time can themselves have no reference to any particular time.

I may therefore sum up my criticisms on the Cosmological Argument as follows. The argument presupposes that nature must be, in principle, capable of satisfying the intellect in the way in which it can be satisfied in pure mathematics. It rightly denies that explanations in terms of ordinary causation, however far back they may be carried, have any tendency to produce this kind of intellectual satisfaction. It argues that such intellectual satisfaction about nature would be in principle obtainable if and only if the two following conditions were fulfilled: (i) that there is at least one particular such that the existence of a particular of that nature is an intrinsically necessary

existential fact; (ii) that all facts about the existence of such natural substances as do exist and about the occurrence of such natural events as do occur are necessary consequences of these intrinsically necessary existential facts. The conclusion of the argument is that these two conditions must be fulfilled. Now the objections are these. (i) It is not in the least evident that nature must be in principle capable of satisfying the intellect in this peculiar way. (ii) The first of the two conditions which are necessary for the fulfilment of this demand appears, on reflexion, to be almost devoid of meaning and almost certainly incapable of realization. (iii) Even if the first condition were fulfilled, it is self-evidently impossible that the second should be. For this would require that facts about the existence of things and the occurrence of events at certain dates should be necessary consequences of facts which are all without any temporal reference whatever.

Suppose now that all these objections could be overcome. What kind of conclusion would the Cosmological Argument establish, and how is this argument related to the Ontological Argument? In answer to the first question there are two remarks to be made. (*a*) The Cosmological Argument, by itself, would not justify the conclusion that there is *only one* substance whose existence is a necessary consequence of its nature and from which *alone* the existence of everything else follows. It would justify only the less determinate conclusion that there is *at least one* such substance, and that from the existence of *it or of them* the existence of everything else follows. (*b*) If the conclusion of the Cosmological Argument be accepted, it follows that there are no really contingent facts. The fact that a person having the nature which I have was born at a certain time and place, and the fact that he sneezed at 11.15 yesterday, may seem contingent relatively to our ignorance. But, if we accept the Cosmological Argument, we know that these facts must be necessary consequences of facts which are all intrinsically necessary. Therefore they cannot really be contingent. All that is possible will be actual, and all that is actual will be necessary. This, as we all know, is the consequence which Spinoza drew in Book I of his *Ethics*, and it seems to me that Spinoza is one of the few people who have both accepted the Cosmological Argument and seen clearly the logical consequences of it.

The relation of the Cosmological to the Ontological Argument may be stated as follows. The Ontological Argument specifies a certain property, viz. that of having all positive powers and qualities to the highest possible degree; and it professes to shew that there must be something which has *this* property. The Cosmological Argument does not claim to do anything so definite as this. It claims only to prove that there must be at least one set of characteristics such that there

must be something which has them all. It does not profess to mention any specific set of characteristics and to shew that there must be something that has *them*. If the Ontological Argument were valid, the conclusion of the Cosmological Argument would certainly be true But the Cosmological Argument might be valid, and its conclusion might be true, even if the Ontological Argument were invalid and its conclusion false.

It only remains to consider what causes have made the Cosmological Argument seem valid to so many men of the highest intellectual power. It was accepted, e.g., by Aristotle, St Thomas, Descartes, Spinoza, Leibniz, and Locke; and this certainly seems a sufficient guarantee of philosophical respectability. I think that there are two causes for this widespread delusion. One is the failure, which we have already noted in connexion with the Ontological Argument, to recognize the peculiarity of existential propositions and the fact that they are utterly unlike characterizing propositions in logical structure. So long as this difference remains unnoticed it does not seem absurd to talk of necessary existential propositions or facts. But, when once it is seen that all admittedly necessary propositions are of the form 'if this were the case, then that would be the case', and that no existential proposition is of that form, the temptation to think that there might be necessary existential propositions or facts is removed. A second cause is the very peculiar position which Euclidean geometry enjoyed for so many centuries. Here we have a science which seems to consist of propositions which necessarily follow from intrinsically necessary premisses, and yet to give us synthetic and categorical information about a certain important aspect of nature. This suggested the ideal of a completely rational knowledge of every aspect and every fact of nature; and it made this ideal appear to be intelligible even if the *de facto* limitations of the human intellect should forbid its being ever realized in detail. We know now that the necessity of Euclidean geometry, like all other necessity, is only conditional. The theorems follow necessarily from the axioms; but the axioms themselves are not intrinsically necessary, and therefore their necessary consequences are not themselves necessary propositions. So we are exempt from this temptation to which so many of our betters succumbed.

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(To be continued.)