chapter 1
THE ONTOLOGICAL ARGUMENT

COMMENTARY

INTRODUCTION: A PRIORI AND A POSTERIORI ARGUMENTS

The ontological argument has had a long but chequered career. Most famously presented in the eleventh century by St Anselm, abbot of Bec and later Archbishop of Canterbury, it was later rejected by St Thomas Aquinas in the twelfth century, then revived in the sixteenth and seventeenth centuries by Descartes, Spinoza and Leibniz. In the eighteenth century, however, the criticisms made by Kant proved almost fatal, and as a result it was largely ignored for over a century and a half. In our own time, however, interest has been rekindled by the work of philosophers and theologians such as Karl Barth (1931), Charles Hartshorne (1941), Norman Malcolm (1960), Alvin Plantinga (1974) and Carl Kordig (1981).[1]

Certainly it is not difficult to see its fascination. Marked by an extreme formal elegance, it is unique among the arguments for God's existence. This is so because it alone may be classified as an a priori argument, with all other arguments for God's existence being classified as a posteriori arguments. What do these terms mean?

A priori propositions

The terms 'a priori' and 'a posteriori' distinguish between two types of proposition: a proposition that is not dependent on experience and a proposition that is dependent on experience. So the statement 'I cannot be simultaneously in the room and out of it' is an a priori true proposition, whereas the statement 'This ball is square and round' is an a priori false proposition. They are what philosophers call *necessarily true* and *necessarily false*, and no amount of experience or observation will render them otherwise. In one sense, of course, to say that a priori propositions make no appeal to experience is misleading. After all, how can we say this of the two statements just cited when they include words like 'room' and 'ball'? Surely without some experience of, say, being in rooms and playing with balls, these terms would have no meaning at all. The point is that, once we know what these terms mean, no experiential evidence is then required to determine the truth or falsity of the a priori statements in which they appear. Take the proposition 'All bachelors are unmarried men'. While it is certainly true that one requires some experience

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of the world to talk of bachelors in the first place, the truth of this proposition does not depend on this experience but on the *definition of the term*: being a bachelor simply *means* being an unmarried man. In this sense it is a priori true: it provides its own verification and may be regarded as true in itself.

A posteriori propositions

The same, however, cannot be said of a posteriori propositions, like 'The sun is shining' or 'My cat is brown'. Whether these statements are true or false can only be decided by observation, by direct confrontation with the evidence. They are what we call *contingently true* or *contingently false* because their truth or falsity is dependent (or contingent) on the circumstances, on what the world happens to be like. Unlike a priori propositions, therefore, a posteriori propositions are not universally and unconditionally true or false, nor do they provide their own corroboration, but are justified only to the extent that they are verified or falsified by our experience. So we must distinguish between the statement 'A bachelor is an unmarried man' and the statement 'Mr Jones is a bachelor'. The first is a necessarily true proposition, proceeding from the definition of the term; and the second is a contingent proposition, which subsequent evidence may show to be either true or false.

EXERCISE 1.1

Which of the following statements are a priori true or false or a posteriori true or false?

Triangles have three sides.

The sun will rise tomorrow.

Reagan was President of the United States.

If A knows B, and if B knows C, then A knows C.

If A precedes B, and if B precedes C, then A precedes C.

No object can be completely red and green all over.

A man cannot walk on water.

Every man has a mother.

I am reading this sentence.

A straight line is the shortest distance between two points.

Why the ontological argument is unique

With this distinction between a priori and a posteriori behind us, we can now appreciate why the ontological argument for God's existence is unique. All the other arguments we shall look at – for example, the causal argument, the argument from design, the argument from miracles, and so on – base their case on what is the most plausible explanation for various experiences we have of the world. They do not argue that a particular explanation is by definition the only possible explanation but rather that, on the evidence before them, it is the only likely explanation. To this extent they have the form of a posteriori arguments. The ontological argument, on the other hand, is alone in maintaining that God's existence can be established without recourse to *empirical* evidence – that is, evidence drawn from experience – and thus solely on the basis of an analysis of the concept of God. It is not, then, that our

experience justifies the conclusion that God exists. It is rather that the very idea of God implies that God exists, in much the same way as, say, the idea of a triangle implies a three-sided figure of 180 degrees. The proof of God lies, as it were, in the logic of 'God', in the logical implications of what we must say about him. To speak of God and to deny his existence is, as we shall now see, a contradiction in terms.

St Anselm (*c.* 1033–1109) (left), Our lady of Bec (centre), Lanfranc (right)

Born in Aosta, Italy, Anselm entered the monastery at Bec in Normandy as a novice in 1060, succeeding Lanfranc as prior in 1063, and becoming abbot in 1078. Under his direction Bec became a great intellectual centre, celebrated throughout Europe. It was during this period that Anselm wrote his *Monologium* (1076) and *Proslogium* (1077–1078), the latter containing his famous ontological argument. Anselm continued his ecclesiastical career in England; it culminated in his appointment as the second Norman Archbishop of Canterbury in 1093. Generally recognized as the greatest theologian of his day, he emphasized the priority of faith over reason, maintaining that truth was obtained only through *fides quaerens intellectum* or 'faith seeking understanding'. Anselm's tomb at Canterbury became an object of veneration and pilgrimage and he was canonized in 1494.

ANSELM'S ARGUMENT: STAGE 1

The ontological argument was first presented by St Anselm in his *Proslogium* (chs 2–4) and in his *Responsio* to a contemporary critic, the monk Gaunilo (**SOURCE 1: PP. 31–33**).[2] Many present-day commentators argue that *Proslogium* 2 and 4 present a different argument from *Proslogium* 3 and the *Responsio*. Whether this is so is a matter of some debate. What we can say, however, is that the second phase is structurally dependent on the first, and that in the first phase Anselm is concerned to establish the *fact* of God's existence and in the second the *nature* of that existence.

Anselm's definition of God

Anselm's *Proslogium* 2 begins with a famous definition of God: 'God is something than which nothing greater can be conceived' ('aliquid quo nihil maius cogitari possit'). The word 'greater' is admittedly ambiguous; but it soon becomes clear that Anselm does not mean greater in size but greater in value – indeed, in the *Proslogium*, *maius* ('greater') is sometimes replaced by *melius* ('better'). Nor does Anselm make any attempt to fill in the details of God's greatness or superiority. Nothing is said, for instance, of the attributes traditionally ascribed to him: his omnipotence, omniscience, immutability,

impassibility, etc. Such descriptions of God's qualities are rendered irrelevant by the very generality of Anselm's definition. For whatever the qualities attributed to God (love, mercy), this definition means that God must possess them to an absolute and ultimate degree (the most loving, the most merciful). Hence it is not just that God is the greatest conceivable being but rather that, being this being, he must possess all conceivable qualities to the greatest conceivable extent.

Having set up this definition, Anselm proceeds to the second phase of his argument. Some people, of course, will deny that God exists. Such a one is 'the fool' of Psalm 14:1, who 'hath said in his heart: ''There is no God.''' But what are we to make of this fool? The first thing to say is that, though he may deny God's actual existence in reality (*in re*), he does not, and cannot, deny God's existence in his mind or understanding (*in intellectu*). This is so because to deny the existence of anything must presuppose the existence of that thing as an idea, i.e., as a thing existing in the mind. For example, if I deny that unicorns exist, I must have an idea in my mind of what a unicorn is like (i.e., a horse with a horn in its forehead). If I did not have this prior concept of what a unicorn is, I could not then deny that such a thing exists. I would indeed have no idea of what I am denying. Now Anselm argues that the same holds for atheists. To deny God's existence must presuppose a concept of God in the mind. If they have no such concept, no such denial can be made.

Anselm next asks an apparently innocuous question. Which is greater, something that exists in the mind or something that also exists in reality? First consider the following:

EXERCISE 1.2

Of the following choices, which would you prefer? Are they all appropriate examples of Anselm's argument? What conclusions do you draw from your answers?

1   To be shot by an imaginary bullet or by a real one?
2   To be given an imaginary million dollars or a real million dollars?
3   To fight an actual war or an imaginary one?
4   To fall in love with a real person or a fictional person?
5   To combat a real threat or an imaginary threat?

Anselm's conclusion is that a thing is more valuable or more terrible, or indeed more anything, if it exists in reality than if it exists in the mind only. And from this he draws another conclusion: that the notion of the greatest conceivable being cannot be conceived in thought alone but must actually exist; that, in other words, any being that exists in reality will be greater than any being that is merely conceived of; and that consequently the greatest conceivable being, God, must exist.

Distinction between intentional and formal existence

In order to clarify this, let us formulate Anselm's argument in a slightly different way. In differentiating between two kinds of existence – existence-in-the-mind and existence-in-reality – Anselm is presupposing an important distinction between what later philosophers have called *intentional* and *formal* existence. Briefly put, intentional existence refers to the content of my idea (for example, my idea of a baseball bat), and formal existence refers to the real thing in the world to which that idea refers (for example, the actual baseball bat in the locker-room). Anselm's own example is between the ideas a painter has before painting (intentional) and the finished product, the actual painting (formal).

Now, to repeat, Anselm has claimed that the concept of God *is* the concept of the greatest conceivable being. He has also argued that even the atheist, in denying the existence of God, is denying the existence of this particular being. In other words, *both* the believer and the unbeliever, in affirming and denying God, have an idea of this being in their minds to begin with: they are both thinking of the *intentional* existence of God. But, Anselm asks, can the idea of God, as the greatest conceivable being, be merely the idea of an intentional existence? It cannot, he says. Why? Because if God's existence is solely intentional, then it will be possible to conceive of a greater God, a God who is not only an idea but who actually exists, who also has formal existence. *For something is greater if it is both conceived of and exists than if it is merely conceived of.* Thus it follows that the being which exists only intentionally cannot be the greatest conceivable being: it lacks the extra attribute of real, formal existence. We may put this another way. Which is greater (i.e., which contains the greater number of attributes), the 'idea of X' or the 'idea of an X that actually exists'? Clearly the latter because, unlike the former, it has the extra attribute of actual existence: it alone exists apart from the mind's conception of it. Thus the thing that is the greatest conceivable being must exist. For if it did not exist I could conceive of a greater thing by simply adding to it the extra quality of existence.

Therefore, if that, than which nothing greater can be conceived, exists in the understanding alone, the very being, than which nothing greater can be conceived, is one, than which a greater can be conceived. But obviously this is impossible. Hence, there is no doubt that there exists a being, than which nothing greater can be conceived, and it exists both in the understanding and in reality.[3]

Why atheists are 'fools'

We can now see why Anselm considers atheists fools. If they accept the idea of God but deny his actual existence, they are involved in a blatant contradiction, a contradiction as obvious as the denial that triangles are three-sided figures. They are denying what is *implied* in the idea of the greatest conceivable being – namely, that this being must exist, must possess the additional attribute of formal existence. What they are saying, in effect, is that

they reject the existence of a being whose being implies existence: 'that a being that must exist does not exist'. Thus their foolishness is exposed in the meaningless of their claim.

EXERCISE 1.3

Following the first stage of Anselm's argument, which of the following statements should we regard as 'foolish'? Give your reasons.

I deny that my mother exists.

I deny that my mother existed.

I deny that the perfect poker-player exists.

I deny that unicorns exist.

I deny that God exists.

I deny that I exist.

ANSELM'S ARGUMENT: STAGE 2

The second stage of Anselm's ontological argument is contained in his reply to his fellow Benedictine, the monk Gaunilo of Marmoutier, near Tours in France. Gaunilo's criticisms are important for two reasons: first, they foreshadow many later objections to the argument; and second, they allow Anselm, in his *Responsio*, to strengthen his case in a way which, many believe, makes it much more persuasive.[4]

Gaunilo's criticism of Anselm's argument

Gaunilo's criticism appears, fittingly enough, under the title *On Behalf of the Fool* (*Liber pro Insipiente*). Gaunilo employs a *reductio ad absurdum* argument to reveal what he considers the basic flaw in Anselm's proof – that is, he argues that the argument must be false because of the absurdities that result if it is accepted. The absurdity that Gaunilo presents is an ontological argument for the existence of a perfect island.

Now, if someone should tell me that there is such an island, I should easily understand his words, in which there is no difficulty, but suppose that he went on to say, as if by a logical inference: 'You can no longer doubt that this island which is more excellent than all lands exists somewhere, since you have no doubt that it is in your understanding. And since it is more excellent not to be in the understanding alone, but to exist both in the understanding and in reality, for this reason it

must exist. For if it does not exist, any land which really exists will be more excellent than it; and so the island already understood by you to be more excellent will not be more excellent.[5]

Gaunilo's analogy of the perfect island

For Gaunilo, therefore, the fact that you can define the greatest conceivable being does not mean that such a being exists. This can be shown by applying the ontological argument to the notion of a perfect island. The definition of a perfect island would be an island 'than which nothing greater can be conceived'. If we follow Anselm, having the *idea* of this all-perfect island (intentional existence) must imply that this island also exists (formal existence). But this is quite absurd. For if it is not absurd, you could prove, simply by defining not only the perfect island but anything else for that matter, that all these things actually exist – for example, the perfect razor blade, the perfect car, or, more sensationally, as the Haights have suggested, a perfectly evil being (**SOURCE 2: PP. 33–34**). Gaunilo continues:

If a man should try to prove to me by such reasoning that this island truly exists, and that its existence should no longer be doubted, either I should believe that he was jesting, or I know not which I ought to regard as the greater fool: myself, supposing that I should allow this proof; or him, if he should suppose that he had established with any certainty the existence of this island. For he ought to show first that the hypothetical excellence of this island exists as a real and indubitable fact, and in no wise as any unreal object, or one whose existence is uncertain, in my understanding.[6]

Gaunilo's criticism is directed against Anselm's argument in *Proslogium* 2. Anselm's *Responsio*, however, draws on the argument already presented in *Proslogium* 3. The ontological argument has so far tried to show that the notion of the greatest conceivable being must include actual existence. But what type of existence? Existence that can fail to be (i.e., contingent existence) or existence that cannot fail to be (i.e., necessary existence)? Anselm maintains that it must include the latter. For it is self-evident, he argues, that that which *cannot* be conceived not to exist (necessary being) is greater than that which *can* be conceived not to exist (contingent being). It follows, therefore, that only necessary being is adequate to the notion of the greatest conceivable.

And it assuredly exists so truly, that it cannot be conceived not to exist. For, it is possible to conceive of a being which cannot be conceived not to exist; and this is greater than one which can be conceived not to exist. Hence, if that, than which nothing greater can be conceived, can be conceived not to exist, it is not that, than which nothing greater can be conceived. But this is an irreconcilable contradiction. There is, then, so

truly a being than which nothing greater can be conceived to exist, that it cannot even be conceived not to exist; and this being thou art, O Lord, our God.[7]

EXERCISE 1.4

A man is reading the obituary columns of *The Times*. Suddenly he shouts out, 'Good gracious! A catastrophe! Elvis has died!' He reads on, and then shouts again. 'Oh no, another catastrophe, even worse! God has died!'

Do you consider this likely/unlikely or possible/impossible? What distinctions would you draw between Elvis' death and God's? What relevance has your answer for Anselm's argument?

Anselm: the necessity of God's existence

In his *Responsio* Anselm exploits the difference between contingent existence and necessary existence to great effect. It is of course true that an island can always be thought of as not existing. Islands, even the most excellent, are, like razor blades and cars, contingent things, and a contingent thing is by definition something that can either exist or not exist. Gaunilo's mistake, however, is to suppose that contingent existence also applies to God, whereas in fact God, as the greatest conceivable being, must belong to a different order of being, necessary being. To repeat, a necessary being is one that *cannot not exist*: it *must* exist. God is therefore the greatest conceivable being precisely because in him alone is existence a constitutive property rather like a triangle which cannot be thought of without its three intersecting sides. Gaunilo, in other words, has made an illegitimate jump from one order of being to another – from contingent being to necessary being – and has thus missed the whole point of the ontological argument. For as that argument demonstrated, God is the only being that cannot be thought of as not existing; or, to put the same point another way, *God is the only being to which the ontological argument can apply because he is the only being whose non-existence is inconceivable*.

DESCARTES' ONTOLOGICAL ARGUMENT

Descartes' definition of God

As we noted at the beginning of this chapter, Anselm's ontological argument lay neglected for over five centuries. In the seventeenth century, however, it was revived by René Descartes. As we shall see, Descartes' version provides an important support for Anselm's argument in his *Responsio*.

Descartes' argument appears in the fifth of his *Meditations* (**SOURCE 3: PP. 35–36**).[8] He begins with the notion of the supremely *perfect* being and not with Anselm's negative formulation of a being than which no greater can be *conceived*. As the supremely perfect being, God must possess all possible
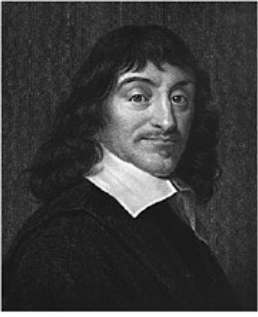
René Descartes (1596–1650)

One of the most influential of all philosophers, Descartes was born at La Haye in Touraine, France, finally settling in Holland in 1628. His first major book, *Discourses* (1637), is a set of three short essays on physical and mathematical topics, and is generally regarded as the first great philosophical work in French, having as its Preface the famous *Discourse on the Method*. Here Descartes introduces his procedure known as 'methodical doubt', which leads in turn to the famous formula *cogito, ergo sum* ('I think, therefore I am'). Descartes' ontological argument appears in the fifth of his *Meditations on First Philosophy* (1641) and is strikingly similar to St Anselm's. He later set out a more systematic exposition of his philosophy in *Principles of Philosophy* (1644). In 1649 Descartes was persuaded, much against his better judgment, to become private tutor in philosophy to Queen Christina of Sweden. However, his heavy workload – tutorials began at 5 a.m. – and the dreadful climate took their toll, and on 11 February 1650 he died of pneumonia.

perfections, amongst which we must include the perfection of existence. Here Descartes' argument dovetails with Anselm's in *Proslogium* 2. Any being that ever failed to exist, or could ever fail to exist, would be less perfect than any being for which this would be an impossibility. Existence must therefore be a *necessary attribute* of the perfect being.

This conclusion Descartes clarifies with an example. Consider, he says, the idea of a triangle. Having this idea clearly does not require that this idea exists – it remains the product of my imagination – but what it does require is that what I am thinking about must have the property of having the sum of its three angles equal to two right angles, and so on. Now, it is in this sense, Descartes continues, that we must understand existence as a necessary attribute of the perfect being. Just as the sum of its angles equalling 180 degrees is entailed in the very idea of a triangle, so existence is entailed in the very idea of a perfect being. Consequently it would be just as contradictory to think of this supremely perfect being without existence as it would be, to use another example, to conceive of a mountain without a valley.

Here Descartes considers a possible objection. The fact that I cannot conceive of a mountain without a valley does not mean that there are such things, actual mountains and actual valleys. All that is entailed is that *if* there is a mountain there is also a valley. Cannot the same be said of God? Cannot it also be said here that, while I certainly may be able to conceive of God as existing, this does not mean that he actually exists? Descartes' reply recalls Anselm's reply to Gaunilo. This is like saying 'God, who must exist, does not exist.' Whereas the notion of a mountain or valley does not include the attribute of existence, the idea of a perfect being does. It is therefore self-contradictory to deny the existence of the supremely perfect being when the attribute of existence is a necessary component of his perfection. In God alone, therefore, we are entitled to infer his existence from the notion of him as the supremely perfect being.

THE TWO STAGES OF THE ARGUMENT: A SUMMARY

The two stages of the ontological argument may be summarized briefly as follows:

SUMMARY: THE TWO STAGES OF THE ONTOLOGICAL ARGUMENT

FIRST STAGE: EXISTENCE IS A PERFECTION

Anything that exists will be greater or more perfect than anything that does not exist. Put otherwise, anything that has both intentional and formal existence will be greater or more perfect than anything that has only intentional existence. Thus, whether we define God as the greatest conceivable being (Anselm) or as the being possessing every perfection (Descartes), this being must exist.

SECOND STAGE: NECESSARY EXISTENCE IS A PERFECTION

Anything that cannot fail to exist will be greater or more perfect than anything that can fail to exist. Put otherwise, anything that has necessary existence will be greater or more perfect than anything that has contingent existence. Thus, whether we define God as the greatest conceivable being (Anselm) or as the being possessing every perfection (Descartes), this being must necessarily exist.

KANT'S CRITICISM OF THE ONTOLOGICAL ARGUMENT (FIRST STAGE)

Of the many criticisms levelled against the ontological argument, the most famous is that made by Immanuel Kant in his *Critique of Pure Reason* of 1781 (**SOURCE 4: PP. 36–38**).[9] Although Kant's objections are directed at Descartes' version, his criticisms are generally held to be equally applicable to Anselm's.

Kant's criticism of the first form concentrates on Descartes' claim that 'Existence is a perfection'. For in saying this Descartes is suggesting that existence is a *property* or *characteristic*, the presence or absence of which will determine whether some things are perfect and others are not. Much the same idea occurs in Anselm's *Proslogium* 2. He too proposed that something is greater if it is both conceived of and exists (i.e., has intentional and formal existence) than if it is merely conceived of (i.e., has only intentional existence). Here, then, it is the extra *attribute* of existence that is required for the greatest being to be the greatest conceivable being. However, it is Kant's contention that existence is not a property, characteristic or attribute at all, and that accordingly the ontological argument is impossible. This he summarizes in his famous, but admittedly rather obscure, remark that 'Existence is not a predicate'.

Immanuel Kant (1724–1804)

A dominant figure in the Western philosophical tradition, Kant was one of the last philosophers to construct a complete philosophical 'system', comprehensive in scope and covering most of the major issues of philosophy. This is all the more remarkable because Kant, on the face of it, was a man of limited experience, living the uneventful life of a scholarly bachelor in his provincial birthplace of Königsberg, East Prussia – prompting the German poet Heinrich Heine to speak of the contrast between Kant's outward life and 'his world-destroying thought'. In common with other philosophers of the Enlightenment, Kant attaches particular importance to man's rational faculty – his capacity to think objectively and apart from his own circumstances or preferences – a view developed in perhaps his greatest work, the *Critique of Pure Reason* (1781), which also contains his celebrated attack on the main theistic arguments, including the ontological argument. A less technical exposition of his views is found in his *Prolegomena to any Future Metaphysic* (1783). His criticism of all metaphysical speculation did not, however, prevent him from developing an argument for God, as a 'postulate' of morality, in his *Critique of Practical Reason* (1788).

Kant: 'existence' is not a predicate

What is a predicate? Predicates are words that refer to the properties of things. For example, in the statement 'Mary is blonde', 'Mary' is the subject and 'is blonde' is the predicate. Other predicates might be 'is a musician', 'is a midget', 'has a toothache', and so on. The question now is: Is 'existence' a predicate? Does this word refer to the property or quality of a thing? Kant's reply is that, since when we say that something exists we are *not* ascribing to it any particular attribute, the word 'existence' cannot be considered a real predicate. His point here is that, if 'existence' is not a predicate, then there can be no quality of existence to which that word refers. And if there is no quality of existence, then Descartes and Anselm cannot claim that existence is something that God must possess (as a quality) to be God.

He illustrates this point with an example. What is the difference between a real hundred pounds and an imaginary hundred pounds? Obviously considerable. I can purchase something with the former but not with the latter – this, after all, was the point originally made by Anselm. But what is the difference between them in the *concept* 'a hundred pounds'? None whatever. The concept is the same in both cases. Indeed, I could add any number of characteristics (or predicates) to the concept. I could talk about the colour of the notes, the watermark, and the picture of the Queen. But however many we may cite, these predicates would not provide extra evidence that the money exists. All they do is offer additional information so that, when anyone seeks the hundred pounds, they know what to look for. When they find anything that has these characteristics, they can say that the hundred pounds actually exists.

Let us take another – and true – example. A sociology student is taking his final university exam. He has done no revision but is blessed with an active imagination. In his essays he cites the work of the 'distinguished Polish

sociologist Poniatowski, whose work has unfortunately not been translated into English'. He provides graphs and figures to illustrate Poniatowski's theories. The examiners are impressed by the student's erudition and he obtains his degree. But Poniatowski does not exist, and the examiners have been duped into believing that he does by the attributes heaped upon him. But no matter how many predicates are thus ascribed to the fictional Pole, he remains a fiction: nothing in the world corresponds to the concept and its predicates. Thus existence is not part of the concept but something which must be independently validated.

EXERCISE 1.5

Answer the question at the end of this dialogue. How does your reply relate to Kant's argument?

Wizard: I can create anything that you can imagine.

Boy: I am imagining a unicorn.

Wizard: Describe it to me.

Boy: Well, basically it's a white horse with a golden horn in the middle of its forehead. And it has a brown patch on its left flank. And it answers to the name of 'Rupert'.

Wizard (waving his wand): Now, open the door.

*Boy*: Gracious, it's my unicorn! Hello, Rupert.

Wizard: So how does your description of your imagined unicorn differ from your description of this real unicorn? Are they the same or not?

Interestingly enough, much the same point Kant has just made about predicates reappears in Bertrand Russell's famous theory of descriptions. This theory, first outlined in his article 'On Denoting' (1905), is generally held to be Russell's most original contribution to philosophy.[10]

Like Kant before him, Russell is concerned to distinguish between propositions about properties or characteristics (predicative propositions) and propositions about the objects, if any, possessing these properties (existential propositions); or, to put it another way, between the *is* of predication ('The so-and-so is such-and-such') and the *is* of existence ('There is a so-and-so'). The failure to distinguish between these two types of proposition results in the kind of confusion apparent in the ontological argument. 'Existence', he repeats, is not a predicate.

Russell: the theory of descriptions

Russell's theory begins with a perplexity. It appears possible not only to talk intelligibly about things that do not exist but also to create the impression that, because we can talk about them, they must in fact exist, that there must be
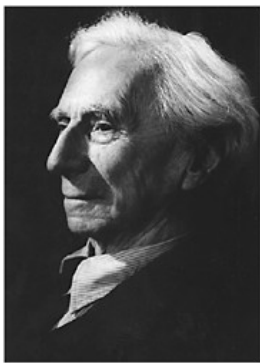
Bertrand Russell (1872–1970)

The grandson of the British Prime Minister, Lord John Russell, and godson of John Stuart Mill, Russell is the most famous representative of twentieth-century British empiricism. His early work was in mathematics, culminating in his *Principia Mathematica* (1910–1913), co-authored with A. N. Whitehead. Applying similar analytical methods to philosophical questions, Russell, influenced also by his pupil Wittgenstein, developed the doctrine of Logical Atomism, from which he believed one could construct a complete description of the world. Throughout his long life, Russell was prominently engaged in matters of social and political concern. Jailed for his pacifism during the First World War, he was active on behalf of women's suffrage and nuclear disarmament. He was also an outspoken critic of religion, regarding it 'as a disease born of fear and as a source of untold misery to the human race'. His agnostic alternative and its vision of a universe of blind matter first appear in *The Free Man's Worship* (1903), and he is particularly dismissive of the theistic proofs in his seminal essay 'Why I am Not a Christian' (1927). He was awarded the Order of Merit in 1949 and the Nobel Prize for literature in 1950.

some object being referred to. For example, suppose I say, 'The present King of France does not exist', and suppose you then ask, 'What is it that does not exist?' When I reply, 'It is the present King of France', I am attributing some kind of existence to this King, even though no present King of France actually exists. Let us take another example. If I say, 'The President of the United States is over 50 years old', then this statement is true if the person denoted by the description 'The President of the United States' is over 50 years old, and false if he is not. But what if I now change the country referred to and speak of 'Great Britain' instead? It is evidently untrue to say that 'The President of Great Britain is over 50 years old' because there isn't such a person; but if it is then *false* to say 'The President of Great Britain is over 50 years old', this seems to imply that 'The President of Great Britain is not over 50 years old' is *true* – which again suggests that there is such a being, that there must be a President of Great Britain for us to be able to deny that he is over 50 years old.

Russell's way round this difficulty is as follows. When I ask a question like 'Do cows exist?' I am in fact asking: 'Is there an object which satisfies those properties associated with the *description* "cow"?' If there is not, I may justifiably conclude that such animals do not exist. In other words, a statement that affirms the existence of X is affirming that there is an object answering to the description 'X'; and a statement that denies the existence of X is denying that there is any such object answering to such a description. Thus 'Cows exist' means 'There are X's such that "X is a cow" is true'. Similarly, to say 'Fairies do not exist' is the same as saying 'There are no X's such that "X is a fairy" is true'. Now, in each case we are not talking about the existence or non-existence of certain objects, but rather about *whether or not there are actual instances of certain descriptions*. Thus neither statement is a statement about cows or fairies. Rather, the first is a statement asserting that there are actual instances of the description

'cow'; and the second is a statement asserting that there are no such instances of the description 'fairy'.

Application of Russell's theory of descriptions to the ontological argument

How does this affect the ontological argument? These examples tell us how deceptive the word 'exists' can be. While grammatically a predicate, it is not a real predicate because its logical function is entirely different: its role is not to ascribe a quality or property to a particular thing, but rather to assert that there is an actual instance of a particular description. Now, if this is the case, then the question before Anselm and Descartes is not whether 'existence' must be predicated of God (as the perfect being), but rather whether the concept of the greatest conceivable and most perfect being is instantiated anywhere in existence – whether the description of God as this being is anywhere fulfilled in reality. The ontological argument is, in other words, based on 'bad grammar': it confuses a grammatical predicate with a real one, hypothetical existence with actual existence. For if, as Kant claims, 'existence' is not a real predicate, then it is not enough for Anselm and Descartes to tell us what is required for God to be God or what constitutes an accurate description of his attributes. For what we must then discover is whether there is anything in the real world that meets these requirements or fulfils this description – and here it is an open question whether we shall be successful or not. It is accordingly no proof of God's existence to say that nothing can be *called* God unless it really exists, because it does not follow from saying this that there is anything that *is* God. Nothing, in other words, can be defined into existence. From the definition of X, it does not follow that X exists.

EXERCISE 1.6

What, according to Kant and Russell, is the error contained in the following dialogue?

President: I need a new Secretary of State.

Adviser 1: Well, there's Smith, Mr President. He speaks eight languages, is very rich, and thinks you're wonderful.

Adviser 2: And then there's Jones, Mr President. He also speaks eight languages, is very rich, and thinks you're the best President we've ever had.

President: What sensible men! But how can I choose between them? They seem identical.

Adviser 1: Oh, Smith's the better choice, Mr President. He has one quality that Jones lacks.

President: What's that?

Adviser 1: He exists.

In Descartes' version of the ontological argument, but no less in Anselm's, existence is a property an object must have to be perfect. Thus, in determining whether A is more perfect than B, where A is otherwise identical to B, A's quality of existence and B's lack of existence will be decisive: A will be more perfect. But what, we may ask, is the comparison between? It is between an object that exists and an object that does not exist. How then can a comparison be made?

For what one is in fact deciding between is a something and a nothing. Thus to compare, as in the example above, an existing Smith with a non-existent Jones is to compare a real candidate with something that *could not be a candidate because of its non-existence*. To repeat: when we say, for example, that candidates A and B are equally loyal and good with money, we are attributing certain *properties* to them; but if we then say that A is a better candidate than B because A exists and B does not exist, we are not conceding to A an *additional* property but rather asserting that the thing we have described as having these qualities *also exists*; that, indeed, in the matter of which person the President should appoint, there is only one choice. Accordingly, to exist is not more perfect than not to exist. For, if it were, it would suppose that existence is itself a quality which makes for perfection. But it isn't. For to say that something exists is not to introduce an additional quality but to say that there is in the world an X in which the qualities already specified are actually exhibited.

KANT'S CRITICISM OF THE ONTOLOGICAL ARGUMENT (SECOND STAGE)

Kant: 'necessary existence' is not a predicate

Kant, who has already attacked the notion that 'existence' is a real predicate, now attacks the notion that 'necessary existence' can be a predicate. He begins, however, by agreeing with Descartes that certain concepts require certain essential and necessary features. So having three angles is an essential and necessary feature of triangles, and to state otherwise would be self-contradictory. But to be logically consistent about triangles does not mean that triangles exist; or, to give another example, while it is necessary that bachelors be unmarried, it is not necessary that bachelors exist. And the same, Kant concludes, can be said of the concept of God as a necessary being. So all that the ontological argument can claim is that 'If anything is God, then it exists necessarily' – that this subject and this predicate are logically conjoined – but not that there is anything existing that is God.

To posit a triangle, and yet to reject its three angles, is self-contradictory: but there is no contradiction in rejecting the triangle together with its three angles. The same holds true of the concept of an absolutely necessary being. If its existence is rejected, we reject the thing itself with all its predicates; and no question of contradiction can then arise.[11]

Descartes, of course, has already rejected this conclusion. While it may be true, he says, that the definition of X does not entail the existence of X, this is not the case with God. For here the definition of God as the perfect being *does* require the impossibility of his non-existence. In all other cases, therefore, it is true that subject and predicate may be rejected together as referring to nothing that exists; but in the case of God we have a unique predicate – the predicate

of not-capable-of-not-existing – which is necessary to this unique subject. Thus to deny the existence of this subject – and this subject alone – involves a contradiction. For necessary existence, as Anselm pointed out to Gaunilo, is a unique attribute of the greatest conceivable being.

EXERCISE 1.7

In the following statements, what are the criteria for using the word 'exist'?

Unicorns exist.

Toothaches exist.

Gravity exists.

Ghosts exist.

Delusions exist.

Mountains exist.

Squares exist.

I exist.

God exists.

In order to demolish Descartes' position, Kant produces a remarkable, and highly influential, argument. The reason why, he contends, God cannot be an exception to the rule – why, in other words, the predicate of necessary being cannot be attributed even to this subject – is that *the predicate itself is meaningless and self-contradictory*. This damning conclusion derives from Kant's distinction between *analytic* and *synthetic* propositions. He defines them as follows:

Kant's distinction between analytic and synthetic propositions

Analytic proposition: a proposition in which the predicate term is contained within the subject term (for example, A triangle is a three-sided figure).

Synthetic proposition: a proposition in which the predicate term is not contained within the subject term (for example, This ball is red).

Without going into all the philosophical ramifications of this distinction, it is sufficient for our purposes to note that the difference between analytic and synthetic propositions corresponds to the difference between necessary and contingent propositions already mentioned at the beginning of this chapter. An analytic proposition, in other words, is a logically necessary proposition (known a priori), and a synthetic proposition is an empirical and contingent proposition (known a posteriori). The first, we may say, gives no information about the world and our experience of it; and the second does give such information about the world and is based on our experience of it. Accordingly, the validity of an analytic proposition, unlike a synthetic one, depends solely on the terms or symbols it employs, and is therefore impossible to deny without contradiction.

Kant now exploits this difference to the full. To argue that there is a necessary being is to say that it would be self-contradictory to deny its existence; and this in turn would mean that at least one existential statement (i.e., a statement that refers to existence) has the status of a necessary truth. But this cannot be

allowed. *For it is logically impossible for any existential proposition to be logically necessary*.

What does Kant mean by this? To clarify his argument, let us retrace our steps. As we have seen already, the distinguishing feature of an existential statement is that its truth or falsity is established on the basis of our observations of the world. This means in turn that the possibility of this statement's being either true or false is a *permanent* possibility. In other words, it is not logic that decides here (a priori) but fallible experience (a posteriori). This, of course, does not mean that we can never be *certain* about the truth or falsity of our empirical judgments. For example, the statements 'The sun cannot stand still in the heavens' and 'All men die' we regard as empirically certain because our experience is so overwhelmingly against the opposite happening. The point is, however, that no matter how great our certainty, we cannot exclude the *possibility* of such events, namely, that the sun could stand still (as reported in the Old Testament following a command of Joshua) and that one man might not die (as is claimed of the prophet Elijah). To repeat, such things would be factually extraordinary but not logically impossible. That there is this alternative is, accordingly, part and parcel of an existential statement being an existential statement. All existential propositions can therefore be denied without self-contradiction.

But what of necessary propositions? To deny the truth of a necessary proposition like 'A bachelor is an unmarried man' is not just false but self-contradictory because here the word 'bachelor' implies 'unmarried man': the truth of the proposition follows logically from the definitions we have employed. All that is being stated here is what it means to be a bachelor or, more exactly, what the correct verbal usage is when we use this particular word. But whether there are such things as bachelors, or whether any particular man is a bachelor, is another matter and can only be decided by appeal to experience. To say, then, that 'This bachelor is not unmarried' is absurd: it can be shown to be false by appealing to nothing more than logic and the meaning of terms. But to say 'My brother is not unmarried' is not absurd, and whether it is true or not will depend on the evidence gathered.

We thus arrive at the following important conclusion. The truth of a synthetic (and existential) statement contains the possibility of its being otherwise (for example, no matter how certain I am that this ball is red, it might not be); and the truth of an analytic (and non-existential) statement does not contain the possibility of its being otherwise (for example, for me to deny that this triangle is a three-sided figure is absurd and self-contradictory).

The predicate of 'necessary existence' is meaningless and self-contradictory

This conclusion enables Kant to reject the second stage of the ontological argument. To assert, with Anselm and Descartes, that God exists necessarily – and thus to assert that the possibility of God's non-existence is impossible – is to be profoundly confused about the nature of those statements that can and cannot refer to existence. They are saying in effect that a synthetic proposition has here attained the status of an analytic proposition; or rather that here we have an assertion which, although requiring the possibility of being false, now excludes it. Indeed, we may go further and say that any attempt to establish a *proof* of the existence of *anything* must be radically misconceived. For proof,

which excludes doubt, cannot apply to anything whose existence is being discussed, and where therefore the possibility of its non-existence must be entertained. The ontological argument, of course, denies this; but it does so, says Kant, only by first building the notion of existence into the concept of the thing it is seeking to prove exists, that is, by producing what he calls a 'miserable tautology'. This, then, is Kant's final condemnation of the onto-logical argument: the argument succeeds only to the extent that it proves what it has already assumed.

The attempt to establish the existence of a supreme being by the famous ontological argument of Descartes is therefore merely so much labour and effort lost; we can no more extend our stock of [theoretical] insight by mere ideas, than a merchant can better his position by adding a few noughts to his cash account.[12]

THE ONTOLOGICAL ARGUMENT REVISITED: FINDLAY AND MALCOLM

Findlay's disproof of God

Although Kant was not the first philosopher to employ the argument just mentioned – we find much the same in Hume[13] – the general thrust of his argument is duplicated by many critics, not least in our own day: Bertrand Russell, for example, uses it in his famous conversation with Frederick Copleston.[14] It is also employed to great effect by J. N. Findlay in his much-discussed article of 1948, entitled 'Can God's Existence be Disproved?' (**SOURCE 5: PP. 38–40**).[15] In this remarkable essay Findlay, by considerably tightening Kant's argument, presents not merely a criticism of Anselm but an ontological argument in reverse: a formal *disproof* of divine existence. Anselm, he argues, was right to say that only a being that exists necessarily can be the proper focus of religious belief: one could hardly be expected to worship a being whose existence is merely contingent. This requirement is, however, impossible because, following Kant, nothing can be conceived to exist that cannot also be conceived not to exist. We thus arrive at what Charles Hartshorne has called 'Findlay's paradox':[16]

Findlay's paradox

(a)   A contingent being would not deserve worship.
(b)   A necessary being is a logical absurdity.

Or to express it another way:

(a)   Only necessary being can be the object of religious devotion.
(b)   Necessary being cannot be attributed to an actually existing God.

What religion requires is thus denied by logic. Findlay, while admitting his debt to Kant, finds it strange that Kant should not have seen that this is not just a criticism of Anselm but rather an inversion of the ontological argument itself, not a proof but a dis-proof of the existence of God. For if it is (a) logically possible that God does not exist (i.e., if we conceive God as contingent), then God's existence is not merely doubtful but *impossible*, since by definition nothing capable of non-existence could be God at all. But if we say (b) that God is therefore not capable of non-existence (i.e., that his existence is necessary), we are repeating that his existence is not merely doubtful but *impossible*, since nothing incapable of non-existence can exist. Thus Findlay concludes:

It was indeed an ill day for Anselm when he hit upon his famous proof. For on that day he not only laid bare something that is of the essence of an adequate religious object, but also something that entails its necessary nonexistence.[17]

Malcolm's reply to Findlay

Not surprisingly, Findlay's argument has also been challenged. Charles Hartshorne has pointed out that, if it makes sense to speak, as Findlay has just done, of God's 'necessary non-existence', then it is difficult to see why it does not make sense to speak of its alternative, God's 'necessary existence' – the one implies the other's negation. Findlay has accepted this as a valid criticism.[18] Hartshorne, however, is joined by his fellow American, Norman Malcolm, in a second criticism.[19] The view that all existential propositions are contingent propositions represents a particular tradition in philosophy, extending back to Hume and Kant, but it is not the only one. Malcolm points to the work of his own teacher, Ludwig Wittgenstein (1889–1951), as a case in point. For our purposes, it is sufficient here to note that Wittgenstein in his later period challenges the assumption that all meaningful statements are either analytic or synthetic, and argues instead that the meaning of terms may also be derived from their actual *use* in ordinary contexts, from their function in a particular

'language-game'. Malcolm now applies this principle to Findlay's argument **(SOURCE 6: PP. 40–42)**. Rather than simply dismissing the idea of a 'necessary being' as a meaningless concept, what we must do is to look at the *religious context* in which it is set. What was the original reason for Anselm's introducing this idea in *Proslogium* 3? It was designed to show, says Malcolm, that *God exists in the greatest conceivable manner, the ordinary and contingent way of existing being defective*. The concept of necessary being, in other words, is designed to exclude the possibility of non-existence – which implies a precarious existence or an existence by chance from the concept of the perfect being. And this, Malcolm contends, is not a nonsensical thing to do. For it is not nonsensical to reject the idea of God as a limited being, who either was caused to come into existence or merely happened to come into existence. And neither is it an error of logic to say, in common with the main tradition of theistic belief, that God, if so limited, cannot be the proper object of religious devotion. Here he agrees with Findlay. To be capable of non-existence is to be unworthy of worship.

True to his method, Malcolm clarifies his position by looking to see how the contrast between contingent and necessary being operates in everyday usage. This he does by comparing it to the contrast between *dependence* and *independence*. He maintains that in common language we regard the notions of dependence and independence as respectively inferior and superior. For example, if two sets of dishes are alike in all respects except that one is fragile and the other is not, we regard the fragile set as inferior since it depends on gentle handling for its continued existence. The same is true of the contrast *limited* and *unlimited*. An engine that requires fuel is limited because dependent on its fuel supply, and is thus regarded as inferior to one that is the same in all respects except that it requires no fuel. Similarly, *contingent* beings are limited because dependent on other things (parents, food) both for their coming into existence and for their continued existence. This, however, establishes their inferiority to that which cannot be thought of as being either brought into existence by anything or as depending for its existence on anything; and this can only be what Anselm means when he calls God a *necessary* being, i.e., a being whose non-existence is inconceivable and who thus exists independently of anything whatsoever.

Malcolm now replies to Kant. That God is a necessary being is part of the logic of God's innate superiority. If we deny this and say, with Kant, that necessary existence cannot be a property of God, then we are conceiving of a lesser God than the perfect being. For if anything lacks logically necessary being – that is, if its existence can be denied without contradiction – then it must logically depend for its existence on something else and so be inferior. Far from being meaningless, therefore, the concept of necessary being renders intelligible the idea of God as the greatest conceivable and most perfect being.

This conclusion allows Malcolm to turn the tables on Kant. According to Kant, we remember, all that the ontological argument has established is the logical truth of the conditional proposition '*If* such a being (God) exists, then it necessarily exists'. This proposition, to repeat, like the proposition about triangles, does not entail the existence of anything. But what, asks Malcolm, is

Kant really saying here? He is surely saying that the non-existence of God is in fact conceivable; that despite the logical requirement of necessary existence *if* God exists, he may not actually exist. But this, says Malcolm, involves Kant in a blatant contradiction. At one moment he is saying that he cannot conceive of the non-existence of God and at the next moment that he can. On the one hand, he has accepted that necessary existence is a logical requirement of the concept of God (i.e., cannot be thought of as not existing), and, on the other, denied that it is (i.e., can be thought of as not existing). The result, Malcolm concludes, is a combination of two incompatible propositions: 'God (who must exist) might not exist.' This, it is claimed, resolves Findlay's paradox:

(a)   Only necessary being can be the object of religious devotion.
(b)   It is self-contradictory to claim that necessary being cannot be attributed to God.

Malcolm's ontological argument

With this argument behind him, Malcolm now proceeds to his own restatement of the ontological proof:

Let me summarize the proof. If God, a being a greater than which cannot be conceived, does not exist then he cannot *come* into existence. For if He did He would either have been caused to come into existence or have *happened* to come into existence, and in either case He would be a limited being, which by our conception of Him He is not. Since he cannot come into existence, if He does not exist His existence is impossible. If He does exist He cannot have come into existence (for the reasons given), nor can He cease to exist, for nothing could cause Him to cease to exist nor could it just happen that He ceased to exist. So if God exists His existence is necessary. Thus God's existence is either impossible or necessary. It can be the former only if the concept of such a being is self-contradictory or in some way logically absurd. Assuming that this is not so, it follows that He necessarily exists.[20]

Much of Malcolm's argument has been already discussed in his reply to Kant; but for clarity's sake it may be unpacked into the following eight stages:

SUMMARY: MALCOLM'S ONTOLOGICAL ARGUMENT

1   God, as the greatest conceivable being, cannot be a limited being.
2   Therefore, if God doesn't exist, he can neither be caused to come into existence nor merely happen to come into existence. Both cases would impose a limitation on God and contradict 1.
3   Similarly, if God does exist, he cannot merely come into existence or cease to exist. Both cases would also impose a limitation on God and so contradict 1.

4   The implication of 2 is that, if God does not exist, his existence is impossible; and the implication of 3 is that, if he does exist, his existence is necessary.

5   Either God does not exist or he does exist.

6   Therefore God's existence is either impossible or necessary.

7   God's existence is not impossible (i.e., the notion of his existence is not self-contradictory).

8   Therefore God necessarily exists.

John Hick

Hick's reply to Malcolm: the distinction between factually necessary being and logically necessary being

It perhaps goes without saying that Malcolm's argument has also been attacked. The principal objection, voiced most notably by John Hick,[21] is that it confuses two different concepts of necessary being, namely, *factually* necessary being and *logically* necessary being (**SOURCE 7: PP. 42–45**).

Factually necessary being is the form of existence which is described by Malcolm in premiss 1 and which played such a part in his reply to Kant. It is existence *independent* of any other existence, involving a being which is thus intrinsically superior to any other kind of being. As Malcolm pointed out, it was this sort of existence – an existence without beginning or end and incapable of decay or decomposition – that Anselm meant by 'a being which cannot be

conceived not to exist'. This, indeed, is the scholastic notion of *aseity* (existence *a se*, 'self-existence'), which Anselm describes in his *Monologium*:

The supreme Substance, then, does not exist through any efficient agent, and does not derive existence from any matter, and was not aided in being brought into existence by any external causes. Nevertheless, it by no means exists through nothing, or derives existence from nothing; since, through itself and from itself, it is whatever it is.[22]

Now it is true that, from premiss 1, we can validly infer 4, that God's existence is either factually necessary or impossible. For if such an eternal and incorruptible being exists, he evidently cannot cease to exist (i.e., his existence is necessary); and if this being does not exist, he cannot, if conceived as eternal, come into existence (i.e., his existence is impossible).

The question now is: Can the existence of God as a factually necessary being be denied? Or rather, can we adopt Kant's tactic and say that, even though we may accept the logical coherence of the concept (i.e., Malcolm's propositions 1–4), we may yet deny that it refers to anything that exists? Malcolm, of course, in his criticism of Kant, has already denied that we can. To reject the existence of a being who is a necessary being (i.e., one that cannot not exist) is a contradiction in terms. This same point now reappears in his own version of the proof. For if, as we have just seen in 4, the choice before us is between God's necessary existence or his impossibility, and if it is not the *assertion* of God's necessary existence that is impossible (and self-contradictory) but its denial, then we may legitimately infer that God necessarily exists (propositions 6–8).

The point is, however, that Malcolm is now talking about *logically* necessary being, that is, about the kind of existence that Descartes was referring to when he likened it to the necessity of a triangle having three sides, i.e., the kind of existence that it would be contradictory to deny. In other words, in propositions 1–4 'necessary existence' means 'factually necessary existence', and in propositions 6–8 it means 'logically necessary existence'. If, therefore, Malcolm's proof is to be consistent, proposition 6, which is the turning-point of his argument, should read 'God's existence is either impossible or *eternal* '. Once translated in these terms, Malcolm's reworking of the ontological proof becomes untenable. For although eternal existence or factually necessary existence cannot be conceived to have a beginning and an end – that would involve a contradiction in linguistic usage – *it can be denied without self-contradiction*. For, as we have noted already, the key to the notion of factual necessity is the idea of aseity, which is causal, and not the idea of contradiction, which is logical. Thus the denial that a being exists *a se* is not self-contradictory. It is not an error of reasoning to reject the idea that there exists a being which nothing could cause to be or cause to cease to be – indeed, to suppose that it is would be contrary to the main biblical tradition, in which atheism, although

considered false and sinful, is not considered self-contradictory. From this it follows that Malcolm cannot infer the logical necessity of 8.

From the necessity of a divine attribute (eternality, aseity) one cannot therefore derive the existence of a being having that attribute. Even if we grant that there is a concept of 'a being which cannot be conceived not to exist', it still remains an open question whether there is an actual instance of this particular concept anywhere in reality. Again, we are not contradicting ourselves if we say that there is no such instance. *The assertion that the concept is logically coherent does not mean that the denial of its existence is logically incoherent*. Thus it is legitimate to conceive that there is not a being which cannot be conceived not to exist. This conclusion does no more than recall Kant's final remark: 'Whatever, therefore, and however much, our concept of an object may contain, we must go outside it, if we are to ascribe existence to the object.'[23]

KARL BARTH: A THEOLOGICAL INTERPRETATION

There remains one last interpretation of the ontological argument which I should like briefly to consider. This is offered by arguably the most influential Protestant theologian of the twentieth century, Karl Barth. Barth's account is highly original and unlike any we have discussed so far.

Karl Barth (1886–1968)

Born in Basle, Switzerland, Barth was educated in the so-called 'liberal Protestant' wing of the Reformed church. He became, however, increasingly discontented with liberalism and what he saw as its alarming dilution of the Christian message through its accommodation with modern culture. In his *The Epistle to the Romans* (1919) he deplored this rapprochement, emphasizing the radical qualitative distinction between the Christian gospel and the world: God is the 'wholly other', known only through revelation, a view which impinges directly on his own highly distinctive interpretation of the ontological argument (1931). With the advent of Hitler, Barth emerged as the leader of church opposition, expressed in the Barmen Declaration of 1934. Deprived of his professorship at Bonn, he returned to Basle in 1935 and there continued work on his gigantic *Church Dogmatics*, unfinished but of enormous theological influence.

The title of Barth's monograph on Anselm is *Fides Quaerens Intellectum* (*Faith Seeking Understanding*)[24] – which was indeed the original title of Anselm's *Proslogium*. 'I believe in order to understand' (*credo ut intelligam*) was a statement first enunciated by St Augustine (354–430) and later employed by Anselm to clarify the relation between faith and reason. Thus in Chapter 1 of

the *Proslogium* we read: 'For I do not seek to understand that I may believe (*intelligere ut credam*) but I believe in order to understand (*credo ut intelligam*). For this also I believe, – that unless I believed, I should not understand.'[25]

Barth: the ontological argument as an expression of faith

This gives the key to Barth's interpretation of the ontological argument. Anselm is not here providing an argument whose logic must convince us that God exists but rather one which is an *expression of faith*, in which the existence of God is presupposed. It is hardly surprising, therefore, that the argument should fail as a proof because to provide a proof for the man outside faith was never Anselm's intention. His intention was not to deduce the existence of God from the definition of his being as the greatest conceivable perfection, so that the Fool is a fool precisely because he denies what is already implied, but rather to provide a meditation on the supremacy of God as an *article of faith*, in which the role of the Fool is to confirm the view that it is the believer alone who is in a position to understand. To support this interpretation Barth points to the setting of the proofs, namely, that they begin and end with *prayer*, with an address to God. Given that Anselm's critics, beginning with Gaunilo, ignore this fact, it is not surprising, Barth argues, that they have ignored the theological presupposition of the proofs and accordingly misinterpreted them as a priori philosophical deductions. Anselm's proof is therefore entirely different from Descartes', and so it is 'so much nonsense' to suppose that 'it is even remotely affected by what Kant put forward against these doctrines'.[26]

This interpretation of the ontological argument as an expression of faith is reinforced in Barth's discussion of the specific arguments of the *Proslogium*. Take, for example, the famous definition of *Proslogium* 2: that God is 'something than which nothing greater can be conceived'. This does not present, as is commonly supposed by commentators, a philosophical platform upon which to construct a logical and irrefutable proof of God's existence, but rather provides a theological description, negatively expressed, of *who God is*. In this sense, therefore, the description stands as a 'revealed Name' of God, revealed by God to Anselm in a moment of prophetic insight, and by which he came to recognize the impossibility for faith of denying the existence or the perfect nature of the God designated by that Name. What is revealed, in other words, has less to do with the specific character of God's nature and more to do with the limits imposed on human thought when thinking of him, namely, that it cannot conceive of anything greater. This, Barth maintains, is the absolute rule of thought (*Denkregel*) which the Christian derives from revelation and which provides the norm of all theological thinking: it is an acknowledgement of the complete Christian dependence on God's prior communication of himself to believers. To suppose, therefore, that God could somehow be 'proved' would mean that men need no longer wait upon God's self-revelation for their knowledge of his existence and that they had therefore a degree of independence from him. Neither view, however, is supported by the creator–creature relationship to which holy scripture bears witness.
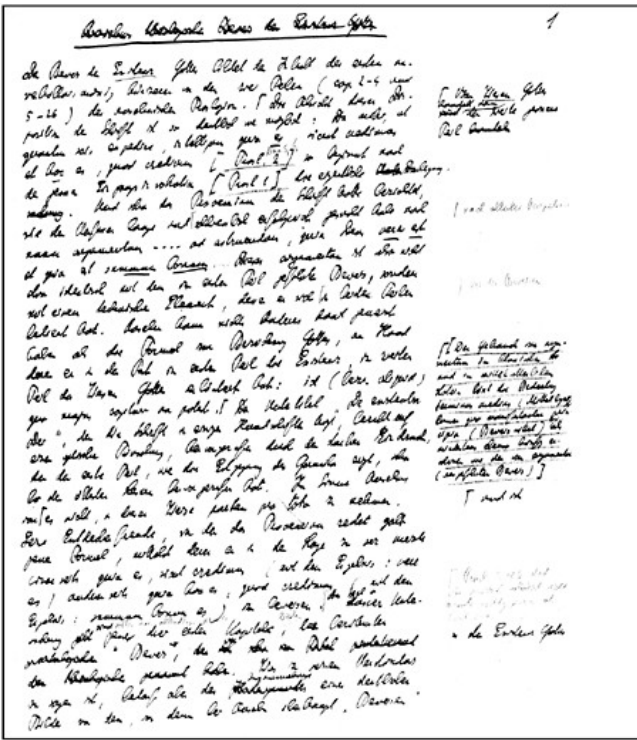
Manuscript page from Barth's *fides quaerens intellectum*

Like Malcolm and Hartshorne, Barth detects a subtle shift in the argument of *Proslogium* 3, with Anselm moving from the demonstration that God exists to an account of the uniqueness of that existence. And here too Barth provides a novel treatment. In the assertion of God's necessary existence – that God is the only being who cannot be thought not to exist – we do not find a logical proof of the impossibility of atheism but a theological statement of the utter dependence of creature upon creator, such that to conceive of the non-existence of God is to conceive also of the non-existence of existence itself. This, too, is an article of faith. For the man of belief the existence of God is the presupposition of his own existence.

The reason why there is such a thing as existence is that God exists. With his Existence stands or falls the existence of all beings that are distinct from him…. Thus, with the prohibition against conceiving anything greater than him and with this prohibition ruling out the thought of his nonexistence – thus does God alone confront man. Thus he and he alone is objective reality.[27]

According to Barth, therefore, the arguments of the *Proslogium* are primarily reflections upon the meaning of the Christian creed, with Anselm always working as a theologian, always reasoning from faith to faith, from what is given in revelation to an explanation of it for those who, while yet believing, do not fully understand. The purpose of the proofs is therefore neither to sustain faith in the believer nor to induce faith in the unbeliever – faith in either case remains the free gift of God – but rather, in the one, to bring joy to faith by increasing understanding, and, in the other, to indicate the limits of understanding without faith.

Criticism of Barth

The most persistent criticism of Barth is that he has here infused Anselm's theology with his own. Without going into this point in any detail, it is worth mentioning, as many others have done, that the book on Anselm is a turning-point in Barth's own theological development, particularly in his growing conviction that no genuine knowledge of God is possible apart from the Christian revelation.[28] For Barth the ideas drawn from secular thought and philosophy are intrinsically different from those of the biblical text, about which only the Holy Spirit can enlighten us, so that the task of the theologian is to present and describe the word of God, and not to indulge in the apologetic task of convincing the unbeliever of his folly.

But is Barth right about Anselm? Does Anselm show an equal lack of apologetic concern, and does he agree that philosophical reasoning can have no bearing upon faith? If we look at Anselm's own account of his intentions, this view is hard to sustain. In the first chapter of the *Monologium*, written a year before the *Proslogium*, he clarifies his position:

If any man, either from ignorance or unbelief, has no knowledge of one Nature which is the highest of all existing beings… and if he has no knowledge of many other things, which we necessarily believe regarding God and his creatures, he still believes that he can at least convince himself of these truths in great part, even if his mental powers are very ordinary, by the force of reason alone (*sola ratione*).[29]

Similarly, in the Preface to the *Proslogium*, Anselm explains that he wants to find a completely independent argument which 'would require no other for its proof than itself alone; and alone would suffice to demonstrate that God truly exists'.[30] Nor, fourteen years later, does Anselm hesitate in grouping the two works together:

I have written two small works, the *Monologion* and the *Proslogion*, which are intended particularly to show that it is possible to prove by necessary means, apart from Scriptural authority, those things which we hold by faith concerning the divine nature.[31]

On the evidence of these extracts at least, Anselm seems to be saying that the truth of God's existence can indeed be established through the arguments of reason alone, through arguments that are rationally compelling and without recourse to the authority of the Bible or the church. Thus the contradiction that Anselm believes the Fool has perpetrated, when he denies that God exists after having accepted Anselm's famous definition, should be construed as an error in *logical reasoning*. It is not a contradiction which, in some roundabout way, contrasts the states of belief and unbelief, but one which quite precisely establishes why the Fool is a fool. Here was a man who did not understand 'what was evident to any rational mind', namely, that his own atheism was rendered self-contradictory by the logic of the definition accepted by him.

In support of this view, Charlesworth makes a telling point. If Barth is right, then Gaunilo's attack on Anselm is not simply invalid but irrelevant: he would be criticizing the ontological argument as a rational argument, which Anselm did not intend it to be.

But this is evidently not how Anselm sees it. Anselm never complains that Gaunilo's criticisms are irrelevant but confronts Gaunilo's objections on Gaunilo's own grounds and attempts to show that they are invalid. In other words, what is obvious in Anselm's reply is that he agrees with Gaunilo's reading of the *Proslogion* argument as a rational proof of the existence of God.[32]

Other critics have pointed out that Barth, in stressing the dependence of belief on God's self-revelation, has correspondingly neglected the account Anselm gives of the role played by reason in the way faith comes to an understanding of what it believes. Barth, of course, is right to underline the difference between the intellectual assent *that* God exists and the commitment of belief *in* the God who exists; but for Anselm the rational justification of the one still remains the necessary precondition of the other, showing that faith is not without logical foundation. Clearly the arguments adduced by Anselm are not designed to show how an appeal to the intellect must lead to faith; but they are designed to show that faith may be reassured by such an appeal, that so cogent are the arguments presented that the believer can, with full confidence, proclaim the intelligibility of his faith. This, after all, explains the role of the Fool. In addressing himself to the man who says there is no God, Anselm is concerned to prove that God does exist; and the foolishness of the Fool consists precisely in failing to see what faith sees, in not appreciating the sheer force of the logic which undergirds faith.

For although they (the infidels) appeal to reason because they do not believe, but we, on the other hand, because we do believe; nevertheless, the thing sought is one and the same.[33]

The argument, in other words, remains the same for both, and is not, as Barth supposes, appreciable only within the framework of faith. This, indeed, constitutes the peculiar apologetic strength of the ontological argument: the argument which enlightens believers in their faith is also that which, once accepted, will remove the unbeliever's intellectual doubt *that* God exists and so prepare him, through God's grace, for the full commitment of belief *in* God. Thus one argument simultaneously defends the rationality of God's existence for both belief and unbelief. Whether, of course, Anselm is justified in this is another matter.

CONCLUSION

Aquinas rejects the ontological argument

The ontological argument, while philosophically fascinating, does not resolve the question whether or not God exists a priori. Indeed, even if further refinements should be made to the argument – even if it should be shown that it is a formally valid argument – we would be no nearer to claiming that the argument therefore *proves* that God exists – for the simple reason that we cannot *know* that these premisses are true. This is the reason why St Thomas Aquinas (1225–1275) rejects the proof. To move from a definition of God to a demonstration of his existence requires a direct awareness of the divine nature or 'essence' of God that no human being can immediately or naturally have. This is, in effect, the same as saying that the ontological argument is workable only for God himself, and that all we can say is that Anselm's proof is a provisional hypothesis to the effect that, *if* God is the greatest conceivable being, *then* he necessarily exists. In this sense, God himself could know whether the argument works, but we cannot. This is not to say, of course, that no knowledge of God can be obtained. For if all our natural knowledge – as opposed to the knowledge that comes through revelation – comes from the information gained by our senses, it must be possible, if God exists, to demonstrate his existence by a similar procedure, that is, from the most familiar and ordinary facts of our experience. Thus the failure of the a priori proof leaves us with the question of whether God's existence can be established a posteriori.

QUESTIONS

1   In what respects is the ontological proof a unique argument for the existence of God?
2   Carefully explain and distinguish between Anselm's two stages of the ontological argument.
3   How does Gaunilo criticize the ontological argument? Assess Anselm's reply.
4   Analyse the argument presented by the statement 'Existence is not a predicate'.

5   How does Kant employ the distinction between analytic and synthetic propositions in his criticism of the ontological argument?
6   Critically analyse Findlay's disproof of the existence of God.
7   Analyse and critically discuss Norman Malcolm's version of the ontological argument.
8   What is the difference between factual and necessary existence? What relevance does this difference have for the ontological argument?
9   Assess the ontological argument for the existence of the Devil. What relevance does this alternative have for Anselm's argument?
10   'The ontological argument is no more than a play on words.' Discuss.

SOURCES: THE ONTOLOGICAL ARGUMENT

1 ANSELM: THE ONTOLOGICAL ARGUMENT[1]

PROSLOGIUM: CHAPTER II

Truly there is a God, although the fool hath said in his heart, There is no God.

And so, Lord, do thou, who dost give understanding to faith, give me, so far as thou knowest it to be profitable, to understand that thou art as we believe; and that thou art that which we believe. And indeed, we believe that thou art a being than which nothing greater can be conceived. Or is there no such nature, since the fool hath said in his heart, there is no God? (Psalm xiv. 1). But, at any rate, this very fool. when he hears of this being of which I speak – a being than which nothing greater can be conceived – understands what he hears, and what he understands is in his understanding; although he does not understand it to exist.

For, it is one thing for an object to be in the understanding, and another to understand that the object exists. When a painter first conceives of what he will afterwards perform, he has it in his understanding, but he does not yet understand it to be, because he has not yet performed it. But after he has made the painting, he both has it in his understanding, and he understands that it exists, because he has made it.

Hence, even the fool is convinced that something exists in the understanding, at least, than which nothing greater can be conceived. For, when he hears of this, he understands it. And whatever is understood, exists in the understanding. And assuredly that, than which nothing greater can be conceived, cannot exist in the understanding alone. For, suppose it exists in the understanding alone: then it can be conceived to exist in reality; which is greater.

Therefore, if that, than which nothing greater can be conceived, exists in the understanding alone, the very being, than which nothing greater can be conceived, is one, than which a greater can be conceived. But obviously this is impossible. Hence, there is no doubt that there exists a being, than which nothing greater can be conceived, and it exists both in the understanding and in reality.

PROSLOGIUM: CHAPTER III

God cannot be conceived not to exist. – God is that, than which nothing greater can be conceived. – That which can be conceived not to exist is not God.

And it assuredly exists so truly, that it cannot be conceived not to exist. For, it is possible to conceive of a being which cannot be conceived not to exist; and this is greater than one which can be conceived not to exist. Hence, if that, than which nothing greater can be conceived, can be conceived not to exist, it is not that, than which nothing greater can be conceived. But this is an irreconcilable contradiction. There is, then, so truly a being than which nothing greater can be conceived to exist, that it cannot even be conceived not to exist; and this being thou art, O Lord, our God.

So truly, therefore, dost thou exist, O Lord, my God, that thou canst not be conceived not to exist; and rightly. For, if a mind could conceive of a being better than thee, the creature would rise above the Creator; and this is most absurd. And, indeed, whatever else there is, except thee alone, can be conceived not to exist. To thee alone, therefore, it belongs to exist more truly than all other beings, and hence in a higher degree than all others. For, whatever else exists does not exist so truly, and hence in a less degree it belongs to it to exist. Why, then, has the fool said in his heart, there is no God (Psalm xiv.1), since it is so evident, to a rational mind, that thou dost exist in the highest degree of all? Why, except that he is dull and a fool?

***LIBER APOLOGETICUS CONTRA GUANILONEM* (CHAPTER III)**

A criticism of Gaunilo's example, in which he tries to show that in this way the existence of a lost island might be inferred from the fact of its being conceived.

But, you say, it is as if one should suppose an island in the ocean, which surpasses all lands in its fertility, and which, because of the difficulty, or rather the impossibility, of discovering what does not exist, is called a lost island; and should say that there can be no doubt that this island truly exists in reality, for this reason, that one who hears it described easily understands what he hears.

Now I promise confidently that if any man shall devise anything existing either in reality or in concept alone (except that than which a greater cannot be conceived) to which he can adapt the sequence of my reasoning, I will discover that thing, and will give him his lost island, not to be lost again.

But it now appears that this being than which a greater is inconceivable cannot be conceived not to be, because it exists on so assured a ground of truth; for otherwise it would not exist at all.

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Hence, if any one says that he conceives this being not to exist, I say that at the time when he conceives of this either he conceives of a being than which a greater is inconceivable, or he does not conceive at all. If he does not conceive, he does not conceive of the non-existence of that of which he does not conceive. But if he does conceive, he certainly conceives of a being which cannot be even conceived not to exist. For if it could be conceived not to exist, it could be conceived to have a beginning and an end. But this is impossible.

He, then, who conceives of this being conceives of a being which cannot be even conceived not to exist; but he who conceives of this being does not conceive that it does not exist; else he conceives what is inconceivable. The non-existence, then, of that than which a greater cannot be conceived is inconceivable.

2 D. AND M. HAIGHT: AN ONTOLOGICAL ARGUMENT FOR THE DEVIL[2]

After so many centuries of debate, much of it even quite recent, as to the credibility of Anselm's and others' ontological arguments for the existence of God, it seems only fair to the opposition that some such argument be proposed for Satan's existence. It must be noted, however, that in advocating the Devil's existence, we may be no more than playing the Devil's advocate.

We intend to argue that if Anselm's first ontological argument successfully proves that God indeed exists, then, by parity of reasoning, Satan, or the devil, exists as well. Or, to put it conversely, we shall claim that if Satan does not exist, then neither can God, at least in terms of what the Anselmian argument asserts. Finally, we shall claim that if Satan does not exist, it will not be because of the possible fact that the ontological argument establishes God's existence, but rather it will be because of something that the Anselmian argument *presupposes*, which may not be provable in any argument. Anselm's first argument, roughly, is as follows:

(1) I have a concept of something 'than which nothing greater can be conceived.'
(2) If that 'something' did not actually, or in fact, exist, it would not be 'that than which nothing greater can be conceived,' for something could always be conceived to be greater, viz., something that actually exists.
(3) This 'greatest something' is, by logical equivalence, or definition, 'God.'

(∴) God exists.

An ontological argument for the devil, by analogue of reason, goes as follows:

(1) I have a concept of something than which nothing worse can be conceived.
(2) If that 'something' did not actually, or in fact, exist, it would not be 'that than which nothing *worse* could be conceived,' because something could always be conceived to be much worse, viz., something that actually exists.

(3)   This 'greatest something' we shall call the Devil.

(Ⅱ) The Devil exists.

This second ontological argument, by parity of reasoning with the first, seems sound, if indeed, the first is. Is it not conceivable that not only do we have an idea of something that is the worst possible thing, but that it would *have* to exist if it truly *were* the worst possible thing? Hence, the very possibility of the Devil implies his actuality, just as the very possibility of God implies his existence. The logic is the same, in both cases: a devil would not be the Devil unless he existed and was therefore the most awful thing, just as a god would not be God unless he existed and was therefore the greatest thing.

This ontological argument for Satan seems shocking enough, at least at first reading, but something even more startling might be suggested: the two arguments are not only analogous – they are identical. Might it not be suggested that they both establish the existence of the *one* thing – call it God or Satan – namely, a supreme Being who is the 'greatest' and the 'worst' possible being. This suggestion, however, can be made good *only if* it can be plausibly argued that the word 'greater' in the first argument does *not* imply the word 'better'. For it is surely the case that if Anselm means 'better' when he uses the word 'greater', there would be an overt contradiction between the two ontological arguments, viz., the conflict between a 'best being' and a 'worst being.' But does Anselm, in fact, mean 'better' by 'greater'? It has definitely been claimed, subsequent to Anselm, that his argument assumes 'existence to be a perfection,' or that it is *better* to be than not to be, and with this supplementation, it certainly seems to be the case that Anselm equated the two terms or at least implied the one by the other.

But is this really explicit in Anselm's argument? Is he saying that existence is a perfection? If he is, then his argument seems question-begging, because the argument seems to assume what it purports to prove, viz., that it is better for God to exist than not to exist. Presumably, too, if existence is good, God must be good, but one may not be able to assume that existence is good without, first, proving that God exists and is good. Hence, one cannot, or must not, reverse the order of argument such as Anselm seems to do – one must not assume that existence is good or a perfection unless one has *already* proved God's existence. But, actually, the plausibility of Anselm's proof, at least as it has been here paraphrased, is partly contingent upon the word 'greater'. The 'greatest' possible being must be God. Or, it might be the Devil, for it does not follow from Anselm's argument that God is good, only that he exists. And if the word 'greater' does not involve 'perfection,' then both ontological arguments establish the existence of one and only one being. It is then a matter of faith as to whether one calls it God or Satan, a benign *daemon* or a malicious demon. And this faith may, after all, be simply cause of itself.

3 DESCARTES: THE SUPREMELY PERFECT BEING[3]

Now if it follows, from my mere ability to elicit the idea of some object from my consciousness (*cogitatione*), that all the properties that I clearly and distinctly perceive the object to have do really belong to it; could not this give rise to an argument by which the existence of God might be proved? I assuredly find in myself the idea of God – of a supremely perfect being – no less than the idea of a figure or a number; and I clearly and distinctly understand that everlasting existence belongs to his nature, no less than I can see that what I prove of some figure, or number, belongs to the nature of that figure, or number. So, even if my meditations on previous days were not entirely true, yet I ought to hold the existence of God with at least the same degree of certainty as I have so far held mathematical truths.

At first sight, indeed, this is not quite clear; it bears a certain appearance of being a fallacy. For, since I am accustomed to the distinction of existence and essence in all other objects, I am readily convinced that existence can be disjoined even from the divine essence, and that thus God can be conceived (*cogitari*) as non-existent. But on more careful consideration it becomes obvious that existence can no more be taken away from the divine essence than the magnitude of its three angles together (that is, their being equal to two right angles) can be taken away from the essence of a triangle; or than the idea of a valley can be taken away from the idea of a hill. So it is not less absurd to think of God (that is, a supremely perfect being) lacking existence (that is, lacking a certain perfection), than to think of a hill without a valley.

'Perhaps I cannot think of (*cogitare*) God except as existing, just as I cannot think of a hill without a valley. But from my thinking of a hill without a valley, it does not follow that there is any hill in the world; similarly, it appears not to follow, from my thinking of God as existent, that God does exist. For my thought (*cogitatio*) imposes no necessity on things; and just as I can imagine a winged horse, although no horse has wings, so, it may be, I can feign the conjunction of God and existence even though no God should exist.'

There is a lurking fallacy here. What follows from my inability to think of a mountain apart from a valley is not that a mountain and a valley exist somewhere, but only that mountain and valley, whether they exist or not, are mutually inseparable. But from my inability to think of God as non-existent, it follows that existence is inseparable from God and thus that he really does exist. It is not that my thought makes this so, or imposes any necessity on anything; on the contrary, the necessity of the fact itself, that is, of God's existence, is what determines me to think this way. I am not free to think of God apart from existence (that is, of a supremely perfect apart from the supreme perfection) in the way that I can freely imagine a horse either with or without wings.

Moreover, I must not say at this point: 'After supposing God to have all perfections, I must certainly suppose him to be existent, since existence is one

among perfections; but the initial supposition was not necessary. In the same way, there is no necessity for me to think all quadrilaterals can be inscribed in a circle; but given that I do think so, I shall necessarily have to admit that a rhombus can be inscribed in a circle; this, however, is obviously false.' For there is indeed no necessity for me ever to happen upon any thought of (*cogitationem de*) God; but whenever I choose to think of (*cogitare de*) the First and Supreme Being, and as it were bring out the idea of him from the treasury of my mind, I must necessarily ascribe to him all perfections, even if I do not at the moment enumerate them all, or attend to each. This necessity clearly ensures that, when later on I observe that existence is a perfection, I am justified in concluding that the First and Supreme Being exists. In the same way, it is not necessary that I should ever imagine any triangle; but whenever I choose to consider a rectilinear figure that has just three angles, I must ascribe to it properties from which it is rightly inferred that its three angles are not greater than two right angles; even if I do not notice this at the time. When, on the other hand, I examine what figures can be inscribed in circles, it is in no way necessary for me to think all quadrilaterals belong to this class; indeed, I cannot even imagine this, so long as I will admit only what I clearly and distinctly understand. Thus there is a great difference between such false suppositions and my genuine innate ideas, among which the first and chief is my idea of God. In many ways, I can see that this idea is no fiction depending on my way of thinking (*cogitatione*), but an image of a real and immutable nature. First, I can frame no other concept of anything to whose essence existence belongs, except God alone; again, I cannot conceive of two or more such Gods; and given that one God exists, I clearly see that necessarily he has existed from all eternity, and will exist to all eternity; and I perceive many other Divine attributes, which I can in no wise diminish or alter.

4 KANT: THE IMPOSSIBILITY OF AN ONTOLOGICAL PROOF[4]

If, in an identical proposition, I reject the predicate while retaining the subject, contradiction results; and I therefore say that the former belongs necessarily to the latter. But if we reject subject and predicate alike, there is no contradiction; for nothing is then left that can be contradicted. To posit a triangle, and yet to reject its three angles, is self-contradictory; but there is no contradiction in rejecting the triangle together with its three angles. The same holds true of the concept of an absolutely necessary being. If its existence is rejected, we reject the thing itself with all its predicates; and no question of contradiction can then arise. There is nothing outside it that would then be contradicted, since the necessity of the thing is not supposed to be derived from anything external; nor is there anything internal that would be contradicted, since in rejecting the thing itself we have at the same time rejected all its internal properties. 'God is omnipotent' is a necessary judgment. The omnipotence cannot be rejected if we posit a Deity, that is, an

infinite being; for the two concepts are identical. But if we say, 'There is no God', neither the omnipotence nor any other of its predicates is given; they are one and all rejected together with the subject, and there is therefore not the least contradiction in such a judgment…

Notwithstanding all these general considerations, in which every one must concur, we may be challenged with a case which is brought forward as proof that in actual fact the contrary holds, namely, that there is one concept, and indeed only one, in reference to which the not-being or rejection of its object is in itself contradictory, namely, the concept of the *ens realissimum*. It is declared that it possesses all reality, and that we are justified in assuming that such a being is possible (the fact that a concept does not contradict itself by no means proves the possibility of its object: but the contrary assertion I am for the moment willing to allow). Now [the argument proceeds] 'all reality' includes existence; existence is therefore contained in the concept of a thing that is possible. If, then, this thing is rejected, the internal possibility of the thing is rejected – which is self-contradictory.

My answer is as follows. There is already a contradiction in introducing the concept of existence – no matter under what title it may be disguised – into the concept of a thing which we profess to be thinking solely in reference to its possibility. If that be allowed as legitimate, a seeming victory has been won; but in actual fact nothing at all is said: the assertion is a mere tautology. We must ask: Is the proposition that *this or that thing* (which, whatever it may be, is allowed as possible) exists, an analytic or a synthetic proposition? If it is analytic, the assertion of the existence of the thing adds nothing to the thought of the thing; but in that case either the thought, which is in us, is the thing itself, or we have presupposed an existence as belonging to the realm of the possible, and have then, on that pretext, inferred its existence from its internal possibility – which is nothing but a miserable tautology. The word 'reality', which is in the concept of the thing sounds other than the word 'existence' in the concept of the predicate, is of no avail in meeting this objection. For if all positing (no matter what it may be that is posited) is entitled reality, the thing with all its predicates is already posited in the concept of the subject, and is assumed as actual; and in the predicate this is merely repeated. But if, on the other hand, we admit, as every reasonable person must, that all existential propositions are synthetic, how can we profess to maintain that the predicate of existence cannot be rejected without contradiction? This is a feature which is found only in analytic propositions, and is indeed precisely what constitutes their analytic character…

'*Being*' is obviously not a real predicate; that is, it is not a concept of something which could be added to the concept of a thing. It is merely the positing of a thing, or of certain determinations, as existing in themselves. Logically, it is merely the copula of a judgment. The proposition, 'God is omnipotent', contains two concepts, each of which has its object – God and omnipotence. The small word 'is' adds no new predicate, but only serves to posit the predicate *in its relation* to the subject. If, now, we take the subject (God) with all its predicates (among which is omnipotence), and say 'God is', or 'There is a God', we attach no new predicate to the concept of God, but only posit the subject itself with all its predicates, and indeed posit it as being an *object* that stands in relation to my *concept*. The content of both must be one and the same; nothing can have been added to the concept,

which expressess merely what is possible, by my thinking its object (through the expression 'it is') as given absolutely. Otherwise stated, the real contains no more than the merely possible. A hundred real thalers do not contain the least coin more than a hundred possible thalers. For as the latter signify the concept, and the former the object and the positing of the object, should the former contain more than the latter, my concept would not, in that case, express the whole object, and would not therefore be an adequate concept of it. My financial position is, however, affected very differently by a hundred real thalers than it is by the mere concept of them (that is, of their possibility). For the object, as it actually exists, is not analytically contained in my concept but is added to my concept (which is a determination of my state) synthetically; and yet the conceived hundred thalers are not themselves in the least increased through thus acquiring existence outside my concept.

By whatever and by however many predicates we may think a thing – even if we completely determine it – we do not make the least addition to the thing when we further declare that this thing is. Otherwise, it would not be exactly the same thing that exists, but something more than we had thought in the concept; and we could not, therefore, say that the exact object of my concept exists. If we think in a thing every feature of reality except one, the missing reality is not added by my saying that this defective thing exists. On the contrary, it exists with the same defect with which I have thought it, since otherwise what exists would be something different from what I thought. When, therefore, I think a being as the supreme reality, without any defect, the question still remains whether it exists or not.

5 FINDLAY: DISPROOF OF GOD'S EXISTENCE[5]

But we are also led on irresistibly to a yet more stringent demand, which raises difficulties which make the difficulties we have mentioned seem wholly inconsiderable: we can't help feeling that the worthy object of our worship can never be a thing that merely *happens* to exist, nor one on which all other objects merely *happen* to depend. The true object of religious reverence must not be one, merely, to which no *actual* independent realities stand opposed: it must be one to which such opposition is totally *inconceivable*. God mustn't merely cover the territory of the actual, but also, with equal comprehensiveness, the territory of the possible. And not only must the existence of *other* things be unthinkable without him, but his own non-existence must be wholly unthinkable in any circumstances. There must, in short, be no conceivable alternative to an existence properly termed 'divine': God must be wholly inescapable, as we remarked previously, whether for thought or reality. And so we are led on insensibly to the barely intelligible notion of a Being in whom Essence and Existence lose their separateness. And all that the great medieval thinkers really did was to carry such a development to its logical limit.

We may, however, approach the matter from a slightly different angle. Not only is it contrary to the demands and claims inherent in religious attitudes that their object should *exist* 'accidentally': it is also contrary to those demands that it should *possess its various excellences* in some merely adventitious or contingent manner. It would be quite unsatisfactory from the religious standpoint, if an object merely *happened* to be wise, good, powerful and so forth, even to a superlative degree, and if other beings had, *as a mere matter of fact*, derived their excellences from this single source. An object of this sort would doubtless deserve respect and admiration, and other quasi-religious attitudes, but it would not deserve the utter self-abandonment peculiar to the religious frame of mind…. And so we are led on irresistibly, by the demands inherent in religious reverence, to hold that an adequate object of our worship must possess its various qualities *in some necessary manner*. These qualities must be intrinsically incapable of belonging to anything except in so far as they belong primarily to the object of our worship. Again we are led on to a queer and barely intelligible Scholastic doctrine, that God isn't merely good, but is in some manner indistinguishable from his own (and anything else's) goodness.

What, however, are the consequences of these requirements upon the possibility of God's existence? Plainly, (for all who share a contemporary outlook), they entail not only that there isn't a God, but that the Divine Existence is either senseless or impossible. The modern mind feels not the faintest axiomatic force in principles which trace contingent things back to some necessarily existent source, nor does it find it hard to conceive that things should display various excellent qualities without deriving them from a source which manifests them supremely. Those who believe in necessary truths which aren't merely tautological, think that such truths merely connect the *possible* instances of various characteristics with each other: they don't expect such truths to tell them whether there *will* be instances of any characteristics. This is the outcome of the whole medieval and Kantian criticism of the Ontological Proof. And, on a yet more modern view of the matter, necessity in propositions merely reflects our use of words, the arbitrary conventions of our language. On such a view the Divine Existence could only be a necessary matter if we had made up our minds to speak theistically *whatever the empirical circiinstances might turn out to be*. This, doubtless, would suffice for some, who speak theistically, much as Spinoza spoke monistically, merely to give expression to a particular way of looking at things, or of feeling about them. And it would also suffice for those who make use of the term 'God' to cover whatever tendencies towards righteousness and beauty are actually included in the make-up of our world. But it wouldn't suffice for the full-blooded worshipper, who can't help finding our actual world anything but edifying, and its half-formed tendencies towards righteousness and beauty very far from adorable. The religious frame of mind seems, in fact, to be in a quandary; it seems invincibly determined both to eat its cake and have it. It desires the Divine Existence both to have that inescapable character which can, on modern views, only be found where truth reflects an arbitrary convention, and also the character of 'making a real difference' which is only possible where truth doesn't have this merely linguistic basis. We may accordingly deny that modern approaches allow us to remain agnostically poised in regard to God: they force us to come down on the atheistic side. For if

God is to satisfy religious claims and needs, he must be a being in every way inescapable, One whose existence and whose possession of certain excellences we cannot possibly conceive away. And modern views make it self-evidently absurd (if they don't make it ungrammatical) to speak of such a Being and attribute existence to him. It was indeed an ill day for Anselm when he hit upon his famous proof. For on that day he not only laid bare something that is of the essence of an adequate religious object, but also something that entails its necessary non-existence.

6 MALCOLM: ANSELM'S SECOND ONTOLOGICAL PROOF[6]

Anselm is maintaining (in his second ontological proof)…not that existence is a perfection, but that *the logical impossibility of nonexistence is a perfection*. In other words, *necessary existence is a perfection*. His first ontological proof uses the principle that a thing is greater if it exists than if it does not exist. His second proof employs the different principle that a thing is greater if it necessarily exists than if it does not necessarily exist.

Some remarks about the notion of *dependence* may help to make this latter principle intelligible. Many things depend for their existence on other things and events. My house was built by a carpenter: its coming into existence was dependent on a certain creative activity. Its continued existence is dependent on many things: that a tree does not crush it, that it is not consumed by fire, and so on. If we reflect on the common meaning of the word 'God' (no matter how vague and confused this is), we realize that it is incompatible with this meaning that God's existence should *depend* on anything. Whether we believe in Him or not we must admit that the 'almighty and everlasting God' (as several ancient prayers begin), the 'Maker of heaven and earth, and of all things visible and invisible' (as is said in the Nicene Creed), cannot be thought of as being brought into existence by anything or as depending for His continued existence on anything. To conceive of anything as dependent upon something else for its existence is to conceive of it as a lesser being than God.

If a housewife has a set of extremely fragile dishes, then as dishes they are *inferior* to those of another set like them in all respects except that they are *not* fragile. Those of the first set are *dependent* for their continued existence on gentle handling; those of the second set are not. There is a definite connection in common language between the notions of dependency and inferiority, and independence and superiority. To say that something which was dependent on nothing whatever was superior to ('greater than') anything that was dependent in any way upon anything is quite in keeping with the everyday use of the terms 'superior' and 'greater'. Correlative with the notions of dependence and independence are the notions of *limited* and *unlimited*. An engine requires fuel and this is a limitation.

It is the same thing to say that an engine's operation is *dependent* on as that it is *limited* by its fuel supply. An engine that could accomplish the same work in the same time and was in other respects satisfactory, but did not require fuel, would be a *superior* engine.

God is usually conceived of as an *unlimited* being. He is conceived of as a being who could not be limited, that is, as an absolutely unlimited being. This is no less than to conceive of Him as *something a greater than which cannot be conceived*. If God is conceived to be an absolutely unlimited being He must be conceived to be unlimited in regard to His existence as well as His operation. In this conception it will not make sense to say that He depends on anything for coming into or continuing in existence. Nor, as Spinoza observed, will it make sense to say that something could *prevent* Him from existing. Lack of moisture can prevent trees from existing in a certain region of the earth. But it would be contrary to the concept of God as an unlimited being to suppose that anything other than God Himself could prevent Him from existing, and it would be self-contradictory to suppose that He Himself could do it.

Some may be inclined to object that although nothing could prevent God's existence, still it might just *happen* that He did not exist. And if He did exist that too could be by chance. I think, however, that from the supposition that it could happen that God did not exist it would follow that, if He existed, He would have mere duration and not eternity. It would make sense to ask, 'How long has He existed?', 'Will He still exist next week?', 'He was in existence yesterday but how about today?', and so on. It seems absurd to make God the subject of such questions. According to our ordinary conception of Him, He is an eternal being. And eternity does not mean endless duration, as Spinoza noted. To ascribe eternity to something is to exclude as senseless all sentences that imply that it has duration. If a thing has duration then it would be merely a *contingent* fact, if it was a fact, that its duration was endless. The moon could have endless duration but not eternity. If something has endless duration it will make sense (although it will be false) to say that it will cease to exist, and it will make sense (although it will be false) to say that something will *cause* it to cease to exist. A being with endless duration is not, therefore, an absolutely unlimited being. That God is conceived to be eternal follows from the fact that He is conceived to be an absolutely unlimited being.

I have been trying to expand the argument of *Proslogion 3*. In *Responsio 1* Anselm adds the following acute point: if you can conceive of a certain thing and this thing does not exist then if it *were* to exist its nonexistence would be *possible*. If follows, I believe, that if the thing were to exist it would depend on other things both for coming into and continuing in existence, and also that it would have duration and not eternity. Therefore it would not be, either in reality or in conception, an unlimited being, *aliquid quo nihil maius cogitari possit…*. What Anselm has proved is that the notion of contingent existence or of contingent nonexistence cannot have any application to God. His existence must either be logically necessary or logically impossible. The only intelligible way of rejecting Anselm's claim that God's existence is necessary is to maintain that the concept of God, as a being greater than which cannot be conceived, is self-contradictory and nonsensical. Supposing that this is false, Anselm is right to deduce God's

necessary existence from his characterization of Him as a being a greater than which cannot be conceived.

Let me summarize the proof. If God, a being a greater than which cannot be conceived, does not exist then He cannot *come* into existence. For if He did He would either have been *caused* to come into existence or have *happened* to come into existence, and in either case He would be a limited being, which by our conception of Him He is not. Since He cannot come into existence, if He does not exist His existence is impossible. If He does exist He cannot have come into existence (for the reasons given), nor can He cease to exist, for nothing could cause Him to cease to exist nor could it just happen that He ceased to exist. So if God exists His existence is necessary. Thus God's existence is either impossible or necessary. It can be the former only if the concept of such a being is self-contradictory or in some way logically absurd. Assuming that this is not so, it follows that He necessarily exists.

It may be helpful to express ourselves in the following way: to say, not that *omnipotence* is a property of God, but rather that *necessary omnipotence is*; and to say, not that omniscience is a property of God, but rather that *necessary omniscience* is. We have criteria for determining that a man knows this and that and can do this and that, and for determining that one man has greater knowledge and abilities in a certain subject than another. We could think of various tests to give them. But there is nothing we should wish to describe, seriously and literally, as ''testing'' God's knowledge and powers. That God is omniscient and omnipotent has not been determined by the application of criteria: rather these are requirements of our conception of Him. They are internal properties of the concept, although they are also rightly said to be properties of God. *Necessary existence* is a property of God in the *same sense* that *necessary omnipotence* and *necessary omniscience* are His properties. And we are not to think that "necessarily exists" means that it follows necessarily from something that God exists *contingently*. The a priori proposition "God necessarily exists" entails the proposition "God exists", if and only if the latter also is understood as an a priori proposition: in which case the two propositions are equivalent. In this sense Anselm's proof is a proof of God's existence.

7 HICK: NECESSARY BEING[7]

We may distinguish in Findlay's argument a philosophical premise to the effect that no existential propositions can be necessary truths, and a theological premise to the effect that an adequate object of religious worship must be such that it is logically necessary that he exists. Of these two premises I wish to accept the former and reject the latter. I deny, that is to say, the theological doctrine that God must be conceived, if at all, in such a way that 'God exists' is a logically necessary truth. I deny this for precisely the same reason as Findlay, namely that the demand that 'God exists' should be a necessary truth is, like the demand that a circle should be

square, not a proper demand at all, but a misuse of langauge. Only, whereas Findlay concludes that the notion of an adequate object of religious attitude is an absurdity, I conclude that that of which the idea is an absurdity cannot be an adequate object of religious attitudes; it would on the contrary be an unqualified *in*adequate object of worship.

Let us then ask the question, which seems highly appropriate at this point, as to how religious persons actually think of the Being whom they regard as the adequate object of their worship. What aspect of the Christian experience of God lies behind the idea of necessary being?

The concept of God held by the biblical writers was based upon their experience of God as awesome power and holy will confronting them and drawing them into the sphere of His ongoing purpose. God was known as a dynamic will interacting with their own wills; a sheer given reality, as inescapably to be reckoned with as destructive storm or lifegiving sunshine… God was not for them an inferred reality; He was an experienced reality…. They thought of this holy presence as unique – as the maker and ruler of the Universe, the sole rightful sovereign of men and angels, as eternal and infinite, and as the ultimate reality and determining power, in relation to whom His creatures have no standing except as the objects of His grace. But nowhere in the biblical thought about God is use made of the idea of logical necessity. The notion is quite foreign to the characteristically Hebraic and concrete utterances found in the Bible, and forms no part of the biblical concept or concepts of God.

But, it might be said, was it not to the biblical writers inconceivable that God should *not* exist, or that he should cease to exist, or should lose His divine powers and virtues? Would it not be inconceivable to them that God might one day go out of existence, or cease to be good and become evil? And does not this attitude involve an implicit belief that God exists necessarily, and possesses His divine characteristics in some necessary manner? The answer, I think, is that it was to the biblical writers psychologically inconceivable – as we say colloquially, unthinkable – that God might not exist, or that His nature might undergo change…. They would have allowed as a verbal concession only that there might possibly be no God; for they were convinced that they were at many times directly aware of His presence and of His dealings with them. But the question whether the non-existence of God is *logically* inconceivable, or *logically* impossible, is a purely philosophical puzzle which could not be answered by the prophets and apostles out of their own first-hand religious experience. This does not of course represent any special limitation of the biblical figures. The logical concept of necessary being cannot be given in religious experience. It is an object of philosophical thought and not of religious experience. It is a product – as Findlay argues, a malformed product – of reflection. A religious person's reply to the question, Is God's existence logically necessary? will be determined by his view of the nature of logical necessity; and this is not part of his religion but of his system of logic. The biblical writers in point of fact display no view of the nature of logical necessity, and would doubtless have regarded the topic as of no religious significance. It cannot reasonably be claimed then, that necessary existence was part of their conception of the adequate object of human worship.

What, we must therefore ask, has led Findlay to hold so confidently that logically necessary existence is an essential element in the religious man's concept

of God? His process of thought is revealed in these words: 'We can't help feeling that the worthy object of our worship can never be a thing that merely *happens* to exist, nor one on which all other objects merely *happen* to depend.' The reasoning here is that if a being does not exist by logical necessity, He merely happens to exist; and in this case He ought not to be worshipped as God. But in presenting the dilemma, either God exists necessarily, or He merely happens to exist, Findlay makes the very mistake for which he has criticised the theologians. Findlay should be the last person to use this dichotomy, since he has himself rendered it inoperative by pointing out that one half of the dichotomy is meaningless. And to remove half a dichotomy is to remove the dichotomy. If for example it is said that all human beings are either witches or non-witches, and it is then discovered that there is no such thing as a witch, it becomes pointless, and indeed misleading, to describe everyone as a non-witch. Likewise, having concluded that the notion of necessary existence has no meaning, to continue to speak of things merely *happening* to exist, as though this stood in contrast to some other mode of existing, no longer has any validity. From an empiricist standpoint, there are not two different ways of existing, existing by logical necessity and merely happening to exist. A thing either exists or does not exist; or to be more exact a description either has or does not have a referent. But Findlay, after ruling out the notion of necessary existence, in relation to which alone the contrasting idea of 'merely happening to exist' has any meaning, continues to use the latter category, and what is more, to use it as a term of reproach! This is a very advanced form of the method of having it both ways.

Our conclusion must be that Findlay has only disproved the existence of God if we mean by God a being whose existence is a matter of logical necessity. Since, however, we do not mean this, we may take Findlay's argument instead as emphasising that we must either abandon the traditional phrase 'necessary being', or else be very clear that the necessary being of God is not to be construed a *logically* necessary being.

We have arrived thus far at an identification of the necessary being of the Godhead with incorruptible and indestructible being without beginning or end. These characteristics, however, can properly be regarded as different aspects of the more fundamental characteristic which the Scholastics termed aseity, or being *a se*. The usual English translation, 'self-existence', is strictly a meaningless phrase, but for the lack of a better we must continue to use it. The core of the notion of aseity is independent being. That God exists *a se* means that He is not dependent upon anything for His existence. In contrast to this the created Universe and everything in it exist *ab alio*. For it is true of each distinguishable item composing the Universe that Its existence depends upon some factors beyond itself. Only God exists in total non-dependence; He alone exists absolutely as sheer unconditioned, self-existent being…

Finally, to refer back to Findlay's discussion, it is meaningless to say of the self-existent being that He might not have existed or that He merely happens to exist. For what could it mean to say of the eternal, uncreated Creator of everything other than Himself that He merely happens to exist? When we assert of a dependent and temporally finite being, such as myself, that I only happen to exist, we mean that if such-and-such an event had occurred in the past, or if such-and-such another

event had failed to occur, I should not now exist. But no such meaning can be given to the statement, 'A self-existent being only happens to exist', or 'might not have existed.' There is no conceivable event such that if it had occurred, or failed to occur, a self-existent being would not have existed; for the concept of aseity is precisely the exclusion of such dependence. There is and could be nothing that would have prevented a self-existent being from coming to exist, for it is meaningless to speak of a self-existent being as *coming* to exist.

What may properly be meant, then, by the statement that God is, or has, necessary as distinguished from contingent being is that God *is*, without beginning or end, and without origin, cause or ground of any kind whatsoever. He *is*, as the ultimate, unconditioned, absolute, unlimited being.

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chapter 2
THE COSMOLOGIC AL ARGUMENT

COMMENTARY

INTRODUCTION: THE ARGUMENT AS AN A POSTERIORI PROOF

The cosmological argument is, as its name suggests (from the Greek *cosmos*, meaning 'universe' or 'world'), an a posteriori argument for the existence of God. This means that, unlike the ontological argument, it does not seek to prove God's existence from a definition of the concept of God but rather from an analysis of our experiences of the world about us. This reference to the world, we should add, gives the cosmological argument, and indeed all other a posteriori arguments, its distinctive form as a *proof*. It is not a proof in that it seeks to demonstrate, following Anselm and Descartes, that the denial of God's existence is self-contradictory, but a proof in that it seeks to show how unreasonable that denial is, given the weight of evidence against it. It bases its case, in other words, on what is the most plausible explanation for the various experiences we have of the world. It does not argue, therefore, that the explanation it offers is the only logically possible one but rather that, on the evidence gathered, it is the only likely explanation that can be presented beyond rational doubt.

The cosmological argument has had a long and distinguished history. Among its advocates may be numbered Plato, Aristotle, the Arabic philosopher Averroes, the Jewish philosopher Maimonides, Descartes, Spinoza, Locke, and many contemporary theologians, most notably E. L. Mascall (1943), Austin Farrer (1943), Frederick Copleston (1955) and, more recently, Richard Taylor (1963). Three other modern versions are worth mentioning. Bruce Reichenbach (1972) and William Craig (1979) have presented *deductive* defences of the argument, the latter resurrecting the so-called Kalam cosmological argument – a version originating with the sixth-century Christian philosopher Joannes Philoponos, and deployed to great effect by medieval Islamic theologians of the Kalam school. Richard Swinburne's presentation (1979) is equally unconventional but *inductive* in form, employing conclusions drawn from confirmation and probability theory.[1] Among the argument's critics we may count Hume, Kant and John Stuart Mill, the last-named being a particular influence on two more recent critics, Bertrand Russell and C. D. Broad. Kant himself testified to the argument's importance when he conceded that it was 'the most convincing not only for common sense but even for speculative understanding'.[2]

ST THOMAS AQUINAS: THE ARGUMENTS FROM MOTION AND CAUSE

The most famous version of the cosmological argument is that presented by St Thomas Aquinas (1225–1274) in his *Summa Theologiae* (**SOURCE 1: PP. 75–76**). Here Aquinas sets out his famous 'Five Ways' (*quinque viae*) by which the existence of God can be established.

St Thomas Aquinas (c. 1225–1274)

An aristocrat by birth, Aquinas joined the Dominican order in 1244, much to the disapproval of his family, and rapidly established himself as a student of extraordinary intellectual talent. From 1245 to 1252 he studied at Cologne under Albert the Great, where he encountered the work of Aristotle, and subsequently taught at Paris and Rome, where he acted as adviser and lecturer to the papal court. His enormous philosophical output culminated in his unfinished *Summa Theologiae* (also known as *Summa Theologicae*, *The Sum of Theology*. Later editions and translations also use the title *Summa Theologica* or *The Theological Sum*). Begun in 1256, the *Summa* presents the most complete statement of his philosophical system, and includes his 'Five Ways' to prove God's existence. Aquinas was canonized in 1323 and proclaimed Doctor of the Church (Angelicus Doctor) in 1567. His philosophy was recognized by Pope Leo XIII in the encyclical *Aeterni Patris* (1879) as the official theology of the church and so made mandatory in all Roman Catholic education.

Aquinas: the Five Ways

Aquinas' 'Five Ways' are: (1) the argument from motion; (2) the argument from cause; (3) the argument from contingency; (4) the argument from perfection; (5) the argument from design. The cosmological argument is generally regarded as covering the first three of these arguments. In them Aquinas claims that the evidence we require for God's existence is furnished by the most familiar and commonplace facts of our experience. Thus he begins with two indisputable empirical phenomena: the fact that things move and the fact that things are caused. These two arguments are so similar in form that they may be conveniently treated together.

SUMMARY: THE ARGUMENTS FROM MOTION AND CAUSE

It is an a posteriori truth that some things are in motion and others at rest. A thing that moves must be caused to move by something else, that is, it cannot move unless its potentiality is actualized by something already in a state of actuality. Since, however, nothing can be simultaneously in a state of potentiality and actuality, nothing can move itself. Hence whatever moves must be caused to move by something else, and so on. There cannot, however, be an infinite series of things causing movement to take place. For if there were no first mover there would be no subsequent movers and thus

no present motion, which is contrary to our experience. Thus the series of 'moved movers' implies an 'unmoved mover', a mover that is not itself moved by something else, and this is God.

THE ARGUMENT FROM CAUSE

It is an a posteriori truth that everything that occurs has an efficient cause or active agent, and that this efficient cause also has a cause. There cannot, however, be an infinite regress of causes. For if there were no first cause there would be no subsequent causes and thus no present effects, which is contrary to our experience. Thus the series of 'caused causes' implies a 'first cause', a cause that is not caused by anything else, and this is God.

Aristotle

Neither of these arguments is original, as Aquinas is ready to admit. Both are indebted to the work of Plato's most celebrated pupil, Aristotle (384–322 BC), and to the famous distinction he draws between *actuality* (*actus*) and *potentiality* (*potentia*).[3]

Aristotle: the distinction between actuality and potentiality

Motion or change (Latin, *motus*) is the process by which an object acquires a new form. An object, that is, has the potentiality to become something different, and change is thus the actualization of the potential of one form of matter to become another form of matter. Aristotle's favourite example is the potential of a block of marble to become the actual statue. The capacity of the marble to become the statue is, as it were, latent within the marble, a particular disposition that it possesses; but it cannot possess this disposition to become a statue and actually be this statue simultaneously. In this respect, therefore, potency and act are utterly distinct. So, to use Aquinas' example, wood, which is potentially hot, can by the agency of fire become actually hot; but it would be absurd to suppose that wood can possess both the quality of becoming hot and being hot at the same time and in the same respect (*in potentia* and *in actu*). Change is therefore the movement between two opposing states: A's capacity to become B, and the realization of that capacity when A becomes B.

The next question is: If nothing can be simultaneously in a state of potency and act, how is the transition from one state to the other brought about? It is

The efficient cause

achieved through the agency of what Aristotle calls the 'efficient cause', which must itself be in a state of actuality. Why so? Because if the efficient cause were not actual it would not exist to be the cause of anything, let alone the cause of the transition from potency to act in any other being. To give an example: An acorn has the potential to become an oak. What therefore is the efficient cause of the movement from acorn to oak? Let us say, water. Potential or actual water? Obviously actual water, replies Aristotle, because the state of potential water is in fact no state of real water at all. Thus we conclude that for change to occur there must be an additional entity, the efficient cause, which is itself in a state of actuality, and which, being actual, can provoke the transition from potency to act.

EXERCISE 2.1

Describe the following in terms of Aristotle's distinction between potency and actuality, specifying the efficient causes:

Water	Bankruptcy
Fear	Tuberculosis
Fairies	Yeti
Squares	Olympic runner
Crop growth	Wealth

Aquinas' rejection of infinite regression

The final question is: If every transition from potency to act requires an actual and efficient cause to initiate it, and if every state of actuality presupposes a prior state of potency, is the chain of potency–act one which stretches back through infinity, or is it inaugurated at a specific point? Aquinas' arguments from motion and cause answer this. An infinite series of movers and causes must be rejected in favour of an unmoved mover and an uncaused cause. His reasoning now becomes plain. For unless we presume the existence of a being that is pure act (*actus purus*) – a being, that is, that lacks the prior state of potency and whose actuality does not therefore depend on the existence of any other actual thing – we must presume the existence of a being in potential only, namely, one that cannot, in the absence of any prior actuality, inaugurate anything, and which cannot therefore account for the immediate evidence we have before us of motion and change. It is, accordingly, only by presupposing the actual existence of a first mover or first cause that we can make sense of our present experience that things do move and are caused.

A PROBLEM OF INTERPRETATION: TEMPORAL OR ONTOLOGICAL CAUSE?

Although Aquinas' argument appears straightforward enough, there is a problem of interpretation here that is often overlooked. What exactly is Aquinas

God as temporal first cause

rejecting when he denies the possibility of a causal chain of infinite length? The most obvious answer is that he is rejecting an *infinite temporal succession* of movers or causes: that because everything must be moved or have a cause, and because this series of movers or causes cannot stretch back indefinitely into the past, there must have been a first mover or first cause 'in the beginning'. On this interpretation, Aquinas' argument would go something like this: Suppose I observe a chain of upright dominoes stretching beyond the horizon and out of sight. When I later observe each domino falling and causing its neighbour to fall, I must conclude that this chain has a beginning in a domino that was not itself caused to fall. Why so? Because a chain of dominoes reaching back over an infinite duration of time would presumably take an infinite length of time to reach those dominoes I now observe falling, and would thus not reach those dominoes. It is accordingly only by presuming a first domino that I can account for the immediate and indisputable experience I have of dominoes being caused to fall.

Commentators as diverse as Copleston, Kenny and Flew reject this interpretation – Flew, indeed, goes so far as to call it a 'peculiarly gross howler'.[4] Certainly there are difficulties with the idea of God as the temporal first cause. The first is that the argument now appears self-contradictory: the conclusion, which says that there is an unmoved mover or first cause, contradicts the premiss that everything must be moved and have a cause. Thus either the premiss is true and the conclusion untrue or the conclusion is true and the premiss untrue. The second difficulty is that, even if consistent, the argument gives no reason for concluding that what causes change 'in the beginning' should now exist at all. There is, accordingly, nothing against the suggestion that, having initiated the fall of dominoes, the Great Domino should cease to be. That God is the first cause does not therefore imply that God now exists.

F. C. Copleston avoids these difficulties by making an important amendment. Aquinas, he argues, is not speaking of a temporal first cause but of an *ontologically ultimate cause*; of a cause which is not part of a series stretching back into the past but a 'hierarchy of efficient cause, a subordinate cause being dependent on the cause above it in the hierarchy'.

God as ontologically ultimate cause

What he [Aquinas] is thinking of can be illustrated in this way. A son is dependent on his father, in the sense that he would not have existed except for the causal activity of his father. But when the son acts for himself, he is not dependent here and now on his father. But he is dependent here and now on other factors. Without the activity of the air, for instance, he could not himself act, and the life-preserving activity of the air is itself dependent here and now on other factors, and they in turn on other factors. I do not say that this illustration is in all respects adequate for the purpose; but it at least illustrates the fact that when

Aquinas talks about an 'order' of efficient causes he is not thinking of a series stretching back into the past, but of a hierarchy of causes, in which a subordinate member is here and now dependent on the causal activity of a higher member. If I wind up my watch at night, it then proceeds to work without further interference on my part. But the activity of the pen tracing these words on the page is here and now dependent on the activity of my hand, which in turn is here and now dependent on other factors.[5]

Frederick Copleston, SJ (1907–94)

Causes *in fieri* and causes *in esse*

Copleston is here drawing attention to two types of causes: a cause *in fieri* and a cause *in esse*.[6] A cause *in fieri* is one which causes an effect *becoming* what it is, and a cause *in esse* is one which sustains the *being* of that effect. Thus the relation of father and son is an example of a cause *in fieri*. Here the continued existence of the effect (son) does not require the continued existence of the cause (father) which first produced it. On the other hand, the relation of the pen to my hand is an example of a cause *in esse*. The activity of the pen (effect) could not persist once the action of my hand (cause) had ceased. The difference that Copleston is drawing attention to is therefore between a God whose continued existence is not necessary to the process initiated by him and a God whose existence is necessary. This latter is the *ontologically ultimate cause*, the God whose permanent existence sustains the existence of everything else. In this sense, to use another analogy, God is like a candle which produces light in a room and whose continued presence is necessary if the illumination is to continue. Once the candle is removed, the light forthwith ceases.

This distinction clarifies Aquinas' argument. He is not concerned with causes *in fieri* but with causes *in esse* – not with a lineal or horizontal series but with a vertical hierarchy – and an infinite regression of these causes is impossible. For without the first member, a mover which is not itself moved or a cause which does not itself depend on the causal activity of a higher cause, it is impossible to explain why there is motion or change *here and now* amongst the lower members. Self-evidently a thing cannot cause itself. Thus, if it is not uncaused or its own cause, its present existence must be caused by another, whose own existence sustains it. Since, therefore, no member of any

causal series can exist except through the present operation of a first cause, no dependent causes could operate without this superior cause. Thus we are led to conclude that there must be a first efficient and completely non-dependent cause, an actual cause now operating to preserve the being of all existing things and without which the whole universe would immediately cease to be.

EXERCISE 2.2

Using the distinction between causes *in fieri* and causes *in esse*, can you decide what causal relationship is being expressed in the following?

I am the author of this book.

Standing in front of a mirror causes a reflection.

I am wet because it has been raining.

His death was due to natural causes.

He died when the doctor switched off the respirator.

I am overweight because I eat too much.

Electric current causes a deflection of the magnetic needle.

Kissing causes babies.

A bolt of lightning struck him dead.

Friction causes heat.

ST THOMAS AQUINAS: THE ARGUMENT FROM CONTINGENCY

Copleston's interpretation of Aquinas is justified by the fact that it conforms to the third argument Aquinas presents in his cosmological proof, the argument from contingency. This argument deals specifically with the theme already detected by Copleston, that is, with the notion of God as the ontological ground of being, sustaining all that is.

Existent things exist contingently

Aquinas' argument proceeds as follows. It is an a posteriori fact of our experience not just that things exist but that they exist *contingently*: that they have the possibility of either existing or not existing, 'of being generated and corrupted'. A contingent being, in other words, does not have existence as a constitutive property because its existence is precarious: it is part of its make-up that at one time it did not exist and that at some future time it might not exist. But this, Aquinas continues, is not all that can be said of our experience of the contingency of things. For what, we should ask, are the consequences that follow from the statement that 'Everything that exists exists contingently?' It is this: if *all* objects in the world could fail to exist, then at some time each object was or would become non-existent. To make this clear, let us assume an infinite amount of time. Now, in infinite time the capacity of all things not to exist will inevitably be realized. If we assume, in other words, that the world

has been going on for an indefinite period, there must be a time when every contingent object actualizes its capacity *not to be*, when therefore no objects existed at all. However, if, following the hypothesis of infinite time, the possibility of nothing existing must be fulfilled, then it is equally impossible for anything now to exist – nothing, after all, can come from nothing. And, again, this conclusion contradicts the immediate evidence of our senses.

Perhaps another example will make this rather ungainly argument clearer. Imagine a roulette wheel without numbers and with only the two colours, red and black. Red stands for existence and black stands for non-existence. While one spin of one wheel will have a fifty–fifty chance of black, the introduction of more wheels will greatly diminish the chance of *all* wheels selecting black *at the same time*. But if we now introduce the notion of infinite time, Aquinas argues that, however many wheels may be spinning, it is absolutely certain that eventually all wheels will select black simultaneously. Thus we may conclude that the contingency of existing things requires the prior existence of nothing at all.

God exists necessarily

We thus arrive at the following dilemma. If at one time no contingent objects existed, how are we to account for the certain fact that objects do now exist? This can only be done by rejecting the view that everything that exists is contingent and by supposing that there does exist something that is *incapable* of existing or not existing. We are thus led inexorably to the conclusion that there exists a *necessary being*, a being who, in the words of Anthony Kenny, 'always will be and always was; and cannot nor could not nor will not be able not to be'.[7] The existence of contingent beings can therefore be explained only by the presupposition of a necessary being, which bestows and sustains existence through its inexhaustible power to be. However, this necessary being, for the same reasons outlined by Copleston in the arguments from motion and cause, cannot itself be part of an infinite series or hierarchy of contingent beings. Otherwise we could not explain the existence here and now of beings capable of not existing. Thus we have to affirm the existence of a being which is the cause of its own necessity, which depends on nothing outside itself for its own existence; and this thing 'all humans speak of as God'.

Compared with Aquinas' arguments from motion and cause, the argument from contingency is somewhat tortuous. Let us therefore reduce it to the following eight steps:

SUMMARY: THE ARGUMENT FROM CONTINGENCY

1   We observe things that exist.
2   Things that exist exist contingently (i.e., they may or may not exist).
3   If all things that exist may not exist, then at some time previously nothing existed.
4   If at some time previously nothing existed, then nothing exists now.
5   It is false to say that nothing exists now.

6   It is therefore false to say that the only things that exist exist contingently.

7   There is therefore a necessary being (i.e., a being who cannot not exist).

8   This necessary being is God.

It will be noted that the conclusion reached here that God is a necessary being is identical to that reached in the second form of the ontological argument. Not, of course, that the method employed is the same. The ontological remains an *a priori* proof, proceeding from the definition of God's perfection, whereas the argument from contingency is an *a posteriori* proof, based on our experience of observable phenomena. But the fact that each arrives at a common end underlines their common purpose. This is to assert *the unique ontological status of God's existence*. Malcolm, in his defence of the ontological argument, has already interpreted 'necessary being' in terms of independent being: unlike that of contingent beings, God's existence does not depend on, nor is it sustained by, the existence of any other being. This, we remember, was the meaning of 'factual necessity'.[8] And precisely the same idea operates in the argument from contingency. Although scholars agree that Aquinas in his earlier writings conceives God as a logically necessary being – i.e., in the sense that to deny God's existence is self-contradictory – they also agree that, in his later writings, and particularly in the *Summa Theologiae* – where the contingency argument appears – he has moved to the view that God is a factually necessary being. Here too Aquinas asserts that God is an eternal and imperishable being, whose unique ontological status is realized in his independent and non-derivative existence.

All three cosmological arguments converge at this point. Nothing can move or cause God to come into existence, nothing can move or cause God to pass out of existence, and nothing that moves or is caused can be ultimately accounted for without presupposing God's existence. Although cumbersome, the argument from contingency achieves its pre-eminence as a cosmological proof by its graphic concentration upon these themes. A contingent cosmos cannot account for its own existence: it must depend on another reality to bring it about. To suppose, however, that this reality is also contingent offers no satisfactory explanation, because this reality must similarly be accounted for. We must therefore acknowledge the reality of a necessary being, an unmoved mover, an uncaused cause. Without such a being the cosmos remains unintelligible. For without such a being there would be nothing at all.

EXERCISE 2.3

Which of the following express a *causal* or *logical* relation?

|	
Being a girl:	Not being a boy
Stone hits man:	Man injured
Friction:	Heat
Smoking:	Cancer
Having three sides:	Being a triangle
My existing now:	My father exists
My existing now:	God exists
Wishing to win the lottery:	Winning the lottery
The stone moved:	Something moved the stone
Something moved:	There is an 'efficient' mover
There is an efficient mover	God is the first mover

CRITICISM (1): THE PRINCIPLE OF SUFFICIENT REASON

The cosmological argument raises a whole host of major philosophical problems, problems to do with motion, causality, infinity, necessity, and many others. To simplify matters, I shall concentrate in my criticisms on what I take to be the three major areas of debate. These are: (1) the principle of sufficient reason; (2) the argument from cause; and (3) the concept of necessary being.

The principle defined

The principle of sufficient reason states that nothing occurs without a sufficient reason for why it is and not otherwise; it assumes, in other words, that any fact, X, divorced from an account of how it came about will be unintelligible: it is not enough to know *that* X is one must also presume that there is a reason *why* X is. In its simplest form, then, the principle is a technical way of saying that, whenever we ask the question 'Why?' of something, we always presume that there must be some explanation for it, even though we may not know it at the time. So doctors will admit that there are diseases with unknown causes; but they are less likely to accept that there are diseases without causes.

Aquinas adopts much the same procedure in his cosmological argument. Questions about movement, cause and existence presuppose not only that there must be some explanation for them, whether known or unknown, but also that, without such an explanation, these common features of our experience would be meaningless. But where do we look for this explanation? Evidently not in the world of contingent things because these are dependent on the actual conditions that prevail: they are themselves causally determined by other things and would not have occurred if these conditions had been different. It is for this reason that Aquinas argues that the sufficient condition for the world must
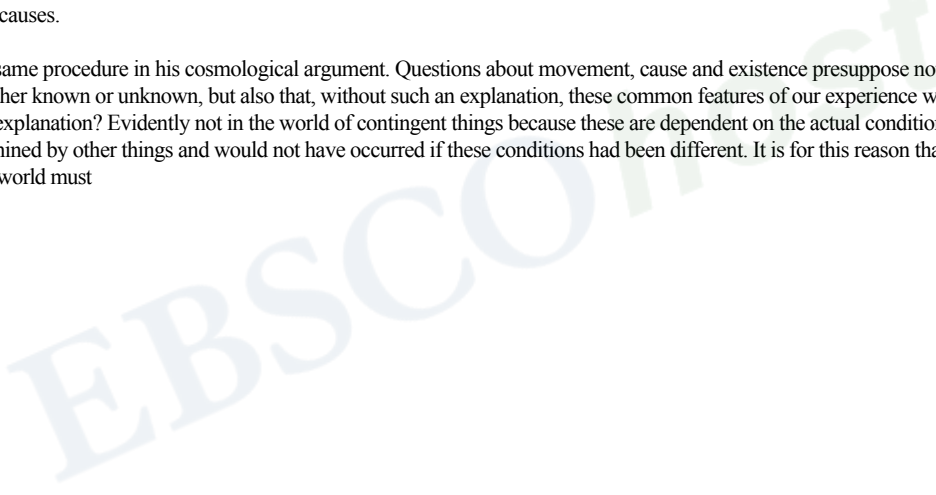
lie beyond or apart from the world; and this, he concludes, must be a necessary being, the first efficient and non-dependent cause of all that is.

Sufficient reason not a logical requirement

It is worth beginning our analysis of this argument with an important general point. It is that the requirement to find an explanation for our world is not a *logical requirement*. It may of course be true to say that the principle of sufficient reason, whereby we seek such explanation, and indeed derive intellectual and emotional satisfaction from it, is part of our rational make-up – what Richard Taylor, in his own imaginative account of the cosmological argument (**SOURCE 2: PP. 76–83**), has called a 'presupposition of reason itself';[9] and few would deny that the success achieved in the study of, say, physics and the behavioural sciences has meant that it is reasonable to suppose that such explanations will usually be found. But this is not the same as saying that it is a matter of *logical necessity* either that such explanations will be found or, more importantly, that such explanations exist to be found. As Mackie remarks, the principles we establish about the symmetries, continuities and regularities of nature are justified a posteriori, that is, by their success in helping us to interpret our world; but they are not justified a priori, that is, by asserting that it is part of the *definition* of a particular thing that it can be explained.[10] To this extent, then, the principle of sufficient reason is an assumption that many feel obliged to make in order to avoid the conclusion that the world is pointless; but to conclude that the world is pointless is not in itself contradictory. When, therefore, the cosmological argument presents us with the dilemma 'Either there is a God or the universe is ultimately inexplicable', it is not an error of logic to conclude that the universe is inexplicable and that accordingly there is no God.

Let me begin by recalling a celebrated conversation between Frederick Copleston and Bertrand Russell:

Debate between Copleston and Russell

RUSSELL: It all turns on this question of sufficient reason, and I must say you haven't defined 'sufficient reason' in any way that I can understand – what do you mean by sufficient reason? You don't mean cause?

COPLESTON: Not necessarily. Cause is a kind of sufficient reason. Only contingent being can have a cause. God is his own sufficient reason; and he is not the cause of himself. By sufficient reason in the full sense I mean an explanation adequate to the existence of some particular being.

RUSSELL: But when is an explanation adequate? Suppose I am about to make a flame with a match. You may say that the adequate explanation of that is that I rub it on the box.

COPLESTON: Well for practical purposes – but theoretically, that is only a partial explanation. An adequate explanation must ultimately be a total explanation, to which nothing further can be added.

RUSSELL: Then I can only say that you're looking for something which can't be got, and which one ought not to expect to get.

COPLESTON: To say that one has not found it is one thing; to say that one should not look for it seems to me rather dogmatic.

RUSSELL: Well, I don't know. I mean, the explanation of one thing is another thing which makes the other thing dependent on yet another, and you have to grasp this sorry scheme of things entire to do what you want, and that we can't do.[11]

Russell is here challenging the assumption that a thing becomes intelligible only when completely explained. For Russell it is not merely that it is practically impossible to provide the kind of explanation Copleston requires – where everything referred to in the explanation is itself explained – but more precisely that such comprehensiveness is not required for a thing to be made intelligible. For example, suppose I am asked to explain why Mrs Thatcher remained Prime Minister of Great Britain for so long. I might reply that this was due to the weakness of successive Labour oppositions. If this were thought insufficient, I could go on to explain her success in terms of her reform of the trade unions, her conduct of the Falklands War, and so on. If this too were not sufficiently enlightening, I might then include facets of her character, of her dominance over colleagues and her appeal to certain sections of the public. But if it should then be argued that even this explanation is incomplete and that what is finally required is some account of why Mrs Thatcher exists – which in turn calls for a history of her family back to the amoeba and the existence of a necessary being – we might justifiably reply with Russell that this requirement is now an unreasonable one, given that the explanations already offered *have satisfactorily answered the original question*.

From this we may conclude that, even if an explanation is not ultimately comprehensive, and even if the explanation offered is expressed solely in terms of the relation between one contingent item and another, this does not mean that the explanation offered is unsatisfactory or that the initial question remains somehow obscure because it cannot be answered to the point of completeness. For what matters here is whether the particular answer being given satisfies the particular question being asked. When therefore cosmologists insist that the only sufficient reason for the existence of any particular contingent being is an ultimate explanation which assumes the necessary existence of God, they are employing, so the criticism runs, a totally misguided conception of what an explanation can and cannot do. Not only is it difficult to see how any explanation could ever satisfy the demand for absolute comprehensiveness, but even *not* satisfying it does not render that explanation inadequate. For as we have seen, a thing can be explained, and thus rendered intelligible, in a more limited way, namely, in terms of its causal

connection with other contingent things, and without recourse to a regressive series of explanations.

This reply, however, does not satisfy Copleston and other advocates of the cosmological argument. Even if an item within the world could be explained by reference to other contingent items, we have not broken out of the circle of contingency: we have still not provided a sufficient reason why *the world as a whole exists*.

What we call the world is intrinsically unintelligible apart from the existence of God. The infinity of the series of events, if such an infinity could be proved, would not be in the slightest degree relevant to the situation. If you add up chocolates, you get chocolates after all, and not a sheep. If you add up chocolates to infinity, you presumably get an infinite number of chocolates. So, if you add up contingent beings to infinity, you still get contingent beings, not a necessary being.[12]

It would seem that we are back where we started. Even if we can explain why any particular thing exists by reference to other contingent things, this does not explain why the *totality* of contingent things exists, why there should be a world at all. Since, therefore, the sufficient reason for the existence of *all* contingent things cannot be found within the world, it must lie outside the world, namely, in some non-contingent existence upon which all contingent and relative being depends. All contingent existences, and all contingent explanations, must consequently depend in the end on an absolute existence, on a necessary being which alone contains the reason for its own existence.

This line of reasoning, however, falls foul of an argument urged by many critics, most notably by David Hume (1711–1776) in his posthumous *Dialogues Concerning Natural Religion* (1779), a book to which I shall refer many times in this and subsequent chapters (**SOURCE 3: PP. 83–84**).

But the WHOLE you say, wants a Cause. I answer, that the uniting of these Parts into a whole, like the uniting of several distinct counties into one kingdom, or several distinct members into one body, is performed merely by an arbitrary act of the mind, and has no influence on the nature of things. Did I show you the particular causes of each individual in a collection of twenty particles of matter, I should think it very unreasonable, should you afterwards ask me, what was the cause of the whole twenty. That is sufficiently explained in explaining the cause of the parts.[13]

Hume and the fallacy of composition

The weakness that Hume is exposing here is called by logicians the 'fallacy of composition'. This fallacy consists in claiming that, since every member of

a class has a certain property, the class as a whole has the same property. Russell makes the same point in his reply to Copleston.

I can illustrate what seems to me your fallacy. Every man who exists has a mother and it seems to me your argument is that therefore the human race must have a mother, but obviously the human race hasn't a mother – that's a different logical sphere.[14]

This example does not, however, settle the issue, since other examples could be given in which the fallacy of composition does not apply. For instance, if every member of a parliamentary constituency votes Labour, then it is correct to say that this is a Labour constituency. Here there is no error of reasoning when the characteristics of each member of the group are applied to the group as a whole. But examples like this do not reduce the force of the objection being voiced by Hume and Russell. For their point is that the fallacy of composition is committed when we move from the *existence* of the members of a group to the *existence* of the group itself; when we assume with the cosmological argument that, because there must be a causal explanation for the existence of the contingent things within the group, there must be a causal explanation for the *totality* of contingent things (i.e., the world). In other words, advocates of the cosmological argument have been seduced by their own language. Because collective nouns like 'group', 'class', 'world' and 'universe' do often function in sentences as if they refer to specific objects, it is tempting to suppose that we can ask for a causal explanation of a group or class in the same way that we can ask for the causal explanation of a particular thing, like a tree or a house. But that is not the case, the reason being that the group is not something distinct from its membership; and that accordingly to explain the activity of the individual members is the same as to explain the activities of the group.

EXERCISE 2.4

Does the fallacy of composition apply in these cases?

1
A: 'Three friends of mine are in Washington: Michael to see his lawyer, George to see his girlfriend, and John to go to a concert.'

B: 'Fine. But what I want to know is why this whole group of friends is in Washington.'

2 The immoral behaviour of the President just goes to show how immoral the government is.

3 All my relations are rich; therefore my family is rich.

4 Iraq is a militant country. Thus every Iraqi is militant.

5 Everything must have a cause; therefore there must be something that is the cause of everything.

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Mechanical and purposive explanations

The difficulty in asking for the sufficient reason of the universe as a whole can be explained from a slightly different angle. It has been suggested that all explanations fall into one of two kinds – mechanical and purposive – and that in each case the explanation is given in terms of *something other* than the thing being explained, be it an event or process, intention or desire.[15] Why won't the car start? Because the fuel tank is empty (mechanical). Why did he kill his mother? Because he wanted her money (purposive). Sometimes these two types combine. Why has Smith a broken jaw? Because (a) a brick hit him (mechanical) and because (b) the neighbour he insulted threw it at him (purposive). Now, it makes sense to ask why-questions of this sort – questions, that is, directed at things within the world – because in each case there is *something else*, apart from the thing to be explained, which can provide the answer. So, in the previous exercise, the explanation was given by reference to what brought each person to Washington. But what can this other thing be when we ask why-questions of the world as a whole? What can be said to exist apart from the totality of all existing things? How, then, can the question of the world as a whole be a meaningful one if there is nothing else in terms of which an explanation can be provided? We have here, in other words, exhausted the normal usage of 'explanation'. It makes sense to ask why-questions of A when there exists a B to which reference may be made; but it does not make sense to ask such questions of A + B when together they constitute the world as a whole, because where then is the answer to come from?

According to the cosmological argument, of course, the answer comes from God, whose necessary existence does distinguish him quite precisely from the contingent existence of everything else. But in that case, so the criticism runs, the argument is guilty of a blatant contradiction. The argument's conclusion – that the why-question of the world as a whole is answered by the necessary existence of God – is reached by the insistence that the principle of sufficient reason is all-inclusive, that it applies to *all that is*. This, however, the argument then contradicts by insisting that the principle does *not* apply to the existence of God; that God is the exception to the rule that the principle has established – in other words, the cosmological answer 'The cause is God' does not admit the question 'What, then, caused God?' This question is ruled out because to seek the cause of a necessary being – a being which by definition excludes questions of its cause – is meaningless. Yet no reason is given why the necessary being thus presented should be the exception or why we should accept it as an explanation even when it flouts the rule that holds for explanations, namely, that an explanation requires a reference to something else.

A priori character of the argument

This is the same as saying that the conclusion of the cosmological argument contradicts the a posteriori character of the argument generally. To recall Mackie's remarks, the principle of sufficient reason is not known a priori but is subject to the test of empirical observation: its justification lies in the degree to which it helps us make sense of things within the world. But when we ask

for the sufficient reason for the world as a whole, we have moved outside the framework within which empirical observations operate. The answer to this question can therefore be provided only on the assumption that there *must be* such an answer; that, in other words, the principle of sufficient reason is a *logical* truth, and that accordingly a necessary relation must hold between the world as a whole and its ultimate cause. But to suppose this is really no more than what Hume calls an 'arbitrary act of the mind', an understandable assumption on our part, made to render our world intelligible. But however emotionally or intellectually reassuring this assumption may be, the world does not have to comply with it. To this extent the cosmological argument has, thus far, failed as a proof. It may be highly plausible to claim that the objects of our experience have explanations, whether we know them or not; but no justification has yet been given for the supposition that all such objects, taken together, remain unintelligible without the ultimate explanation of necessary being.

CRITICISM (2): THE ARGUMENT FROM CAUSALITY

The causal argument proceeds in three stages, each of which is open to dispute.

SUMMARY: THE ARGUMENT FROM CAUSALITY

1. Experiential evidence confirms that every event must have a cause. Thus for any event (C) that exists there must be a prior event (B) that brings C into existence, and a prior event (A) that brings B into existence, and so on.
2. This chain of causes and effects cannot, however, be traced back *ad infinitum*. For an unlimited succession of causes means that there is no beginning to the series; and having no beginning means that there can be no subsequent succession of causes, which is contrary to our experience.
3. Therefore there must be a first cause, called God.

FIRST STAGE

The first stage of the causal argument is governed by the claim, supposedly accepted by all rational people as self-evident, that *every event must have a cause*. This belief has, however, been classically challenged by David Hume.

Scottish philosopher, historian and essayist, Hume is arguably the most influential naturalist philosopher of the eighteenth century. The son of a minor Scottish landowner, he briefly attended Edinburgh University, then studied for a legal career, but left Scotland in 1734 to continue his education

privately at La Flèche in Anjou. Here he wrote *A Treatise of Human Nature*, which was published, without success, on Hume's return to London, in 1739–1740. He had more success with two volumes of *Essays: Moral and Political* (1741–1742), but after failing to secure a professorship in Moral Philosophy at Edinburgh, largely because of the opposition of the local clergy, Hume turned to less literary pursuits, including diplomatic duties in Vienna and Turin. In 1748 he published his *Enquiry Concerning Human Understanding*, a more accessible version of the first part of his *Treatise*, but including as new material his famous essay 'Of Miracles', which brought him further notoriety. His appointment as librarian at the Advocates' Library in Edinburgh provided him with sufficient financial security to produce his highly successful six-volume *History of England* (1754–1762), which brought him wealth and fame. During this period Hume also wrote his two major works on religion: *The Dialogues Concerning Natural Religion*, which on advice was not published until after his death, and *The Natural History*[16] *of Religion* (1757). Further diplomatic service followed in Paris, and Hume returned to England in 1766 accompanied by Rousseau, with whom he quarrelled. He settled finally in Edinburgh in 1769. His cheerful dignity before a painful death on 25 August 1776 established him as something of a secular saint, his continued irreligious attitudes discomforting Boswell but provoking unpleasant remarks from Dr Johnson.

Hume's argument is set out in Book 1 of his *Treatise of Human Nature* (1739–1740) and in Sections 4 and 7 of his *An Enquiry Concerning Human Understanding* of 1748 (**SOURCE 4: PP. 84–86**).

Hume and the relation between cause and effect

In one sense it is strikingly similar to the argument just presented against the principle of sufficient reason. For Hume, to repeat, while it may be intellectually satisfying to suppose that the world requires an explanation, this still remains an assumption on our part – 'an arbitrary act of the mind ' – and is not accordingly a matter of logical necessity. And the same, Hume now claims, can be said of the relation between cause and effect. That every event must have a cause is taken for granted *not* because this causal principle is either intuitively obvious or demonstrable but because, once again, there is a 'determination of the mind', a psychological disposition on our part, that there must be an actual link between one event and another.

John Passmore has given a helpful illustration of how Hume's argument proceeds.[17] A baby boy is given a rubber ball by his uncle. Because he has only played with soft toys, the boy cannot know beforehand that this toy will not drop softly to the ground but bounce. But what does the uncle expect to see? He does expect the ball to bounce. Why? He will reply: because my nephew *caused* the ball to bounce by dropping it; or because rubber balls have the *power* or characteristic of bouncing when dropped; or because rubber balls must

David Hume (1711–1776)

drop, because there is a *necessary connection* between rubber balls dropping and bouncing. But why exactly does the uncle employ concepts like 'cause', 'power' and 'necessary connection'? Presumably, says Hume, it is because the uncle, unlike his nephew, has observed a great many instances of balls dropping and bouncing, and because indeed he has *never* come across an example in which this has not occurred. To use Hume's terminology, within the uncle's experience there has therefore been a *constant conjunction* between a ball's falling and bouncing.

Hume's next question is decisive. What exactly is it about the uncle's experience that generates concepts like 'cause', 'power' and 'necessary connection'? The uncle has seen a ball dropping many times and his nephew only once. But this is the same as saying that the uncle has seen *the same event repeated but has not seen anything new*. The uncle has not therefore seen anything that his nephew has not seen, but has rather had the same experience *more often*. Where, then, does the idea of a causal link – the 'necessary connection' – come from if it has never been directly observed?

Hume's answer is that although experiencing the same sequence of events on innumerable occasions does not reveal something we did not notice on the first occasion – a causal link – it does affect the workings of our mind in a special kind of way. It *forms the habit in us* of expecting a rubber ball to bounce when it drops. To believe that A causes B, or that there is a necessary connection between A and B, or that A *makes* B happen, amounts, then, to nothing more than this: our minds are so constituted that when, having in our experience found A and B to be constantly conjoined, we meet with an A we expect it to be followed by a B; and when we meet with a B we presume it to have been preceded by an A. Our experience generates in us a habit of expecting; our consciousness of this habit is our idea of necessary connection. However, we mistakenly project it into the world around us, wrongly supposing that we perceive necessary connection there rather than simply feel impelled to make particular inferences.[18]

It is beyond the scope of this book to offer an analysis of Hume's argument.[19] For our purposes it is sufficient to note that the first premiss of Aquinas' argument incorporates a theory of causation that can be, and has been, disputed. The causal argument begins with the statement that the relation of cause and effect belongs to what Aquinas calls 'the world of sense', and this classification is duplicated in the argument from motion where the relation

between mover and thing moved is described as 'certain, and evident to our senses'. So, at the heart of our idea of the world, and of our idea of our own experience, we find this indispensable notion of causality, which, Aquinas maintains, can be validated a posteriori, by experience and observation. Hume does not challenge the centrality of the notion, but he does challenge the process by which it is established. This he does because there is no valid logical justification for saying 'that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always the same'.[20]

EXERCISE 2.5

In the light of Hume's criticisms of causality, consider the following:

1 The sun will rise tomorrow.
2 Jumping from skyscrapers is foolish.
3 Every man has a mother.
4 Since, as a 95-year-old, I have survived more nights than a 25-year-old girl, I have a better chance than she of surviving this night.
5 Two aborigines see water-skiing for the first time. 'Why is that boat going so fast?' asks one. 'Because it's being chased by that idiot on a string', replies the other.[21]

Hume's conclusion is, then, that the expectation that future experiences will somehow conform to past experiences is justified on the assumption that *nature is uniform*; that what has been the case will be the case. But the principle that nature is uniform cannot be established. The repetition of instances, which leads us to the belief that A causes B, in turn reinforces our expectation – or what Hume calls a 'habit' or 'custom' – that the same will occur in the future. But the expectation that the relation between A and B will persist does not establish that it will. What we mean therefore by the 'uniformity of nature' is no more than a determination of the mind to think about events *in a causal way*, to organize our experience of events by establishing necessary connections between them. But these connections are not logical, since in this instance we cannot say that A implies B or that there is something about A which must produce B. It is therefore only the constant conjunction of A and B in past experience that induces the belief that they are necessarily connected; but the actual connection between them is a psychological one.

In this way, then, Hume challenges the first premiss of the causal argument. He has shown that the accepted maxim that every event must have a cause is neither self-evident nor demonstrable. But more than that, he has shown the extent to which Aquinas, by explaining causal connections in terms of the uniformity of nature, has assumed the point he is seeking to prove. For to say that nature is uniform is the same as saying that there is a necessary connection between cause and effect, and this is precisely the point at issue. From the outset, therefore, Aquinas has postulated that the universe is ultimately rational but has provided no evidence that it is, only the assumption that it is.

SECOND STAGE

Criticism of Aquinas on infinite regression

The second stage of the causal argument maintains that *an infinite series of regressive causes is inconceivable*. For Aquinas this claim has immediate empirical support. To suppose that there is an infinite series of causes logically requires that we deny that there was a beginning to the series and thus no subsequent effects, i.e., that nothing exists now. Since, therefore, something evidently does exist now, we may reject the idea of an infinite series as manifestly absurd. Both the arguments from motion and cause follow this reasoning, but it is best expressed in the argument from contingency. Here the capacity of anything 'not to be' would be realized in infinite time. Hence there would be a time in the past when nothing existed, and thus nothing existing now. And once again it is the manifest absurdity of this conclusion which forces Aquinas to reject the notion of infinite regression.

This argument is also vulnerable. The first thing to say is that it is logically possible to conceive of a series which has no first member. Mathematicians do just this. Hans Reichenbach explains:

There need not have been a first event; we can imagine that every event was preceded by an earlier event, and that time has no beginning. The infinity of time, in both directions, offers no difficulties to the understanding. We know that the series of numbers has no end, that for every number there is a larger number. If we include the negative numbers, the number series has no beginning either; for every number there is a smaller number. Infinite series without a beginning and an end have been successfully treated in mathematics; there is nothing paradoxical in them. To object that there must have been a first event, a beginning of time, is the attitude of an untrained mind. Logic does not tell us anything about the structure of time. Logic offers the means of dealing with infinite series without a beginning as well as with series that have a beginning. If scientific evidence is in favour of an infinite time, coming from infinity and going to infinity, logic has no objection.[22]

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But to this, as we have seen, Aquinas has a ready reply. There is an obvious difference between admitting the logical possibility of an infinite series of integers and admitting the logical possibility of an infinite series of events. In the first case, any number can be increased or decreased by simply adding or subtracting 1; but in the second, to postulate *no beginning* to a causal series produces the absurd conclusion that there are no events *now occurring*. For to suppose that the history of events is infinite is to suppose a causal chain without a first member; and to take away the first member is to take away the primary cause of all subsequent members, and thus to imply their non-existence. So without A, Z could not exist. But Z exists. Therefore A exists.

The notion that Aquinas wishes to bring out here is of a finite and conditioned existence being *dependent* on an infinite and unconditioned existence; that because every member of the causal chain exists by virtue of God's existence, the denial of his existence results in the absurdity that nothing exists. Again, the contingency argument makes this very clear, making much of the ancient axiom that 'out of nothing nothing can come' (*ex nihilo nihil fit*). The choice, it appears, is between accepting (1) the empirical untruth that even now there is nothing existing, which follows from postulating an infinite series in which everything has the capacity of not being; and (2) the empirical truth that something exists, which follows from postulating that not everything is capable of not being, that indeed there must be something that is necessary. This choice serves to highlight the fact that it is God's *sustaining* existence which provides the support for all existing things, and that this support would be lacking if there were an infinite regression.

Aquinas' reply has been much criticized.[23] That the history of events is infinite does not imply that at some time in the past there was nothing existing but rather that within that series there was nothing uncaused, nothing that did not have a beginning, nothing in fact that can lay claim to the exalted position of first cause within the chain of causal events. Is this a plausible alternative? I think it is. On the presumption that there is infinite past time, and that everything has the possibility of not being, the conclusion is not that at some time there was nothing – i.e., that at some time *everything* was not – but rather that at some time *each* thing was not. In other words, Aquinas' conclusion will not do because he is here assuming the *simultaneous* actualization of everything's capacity not to be. But the time when A was not could (logically) be different from the time that B was not, and so on. We can, for example, imagine a series, each item of which is finite but whose period of existence was not identical but overlapped: there would then be no time when there was nothing. Or we could imagine a contingent thing whose existence has lasted through all past time but which is to perish at some future time. In either case, it is an error of reasoning to suppose that 'each thing at some time is not' entails 'a time when everything was not'. This being the case, Aquinas is wrong to suppose that an infinite series entails the absurdity that nothing exists now; and thus he is wrong

to suppose that what exists now cannot be the result of an infinite causal regression. The existence of a necessary being is not therefore required to explain the empirical truth that things exist.

Nor does Copleston's suggestion that Aquinas is here talking of causes *in esse*, and not causes *in fieri*, avoid these difficulties. While it may be true that Aquinas is speaking of an ontological cause rather than a temporal cause – of a primary supporting existence, upon which everything now existing depends – this cause remains a cause. Why, then, may we not suppose an infinite regression of this vertical hierarchy? For if the series were infinite, or if the finite items within that series overlapped, or if something within that series had not as yet ceased to be, there would still be something existing, and so still something which could provide the ontological support to account for the existence of things here and now.

THIRD STAGE

Hume and the notion of God as first cause

Let us now set aside these objections and assume that Aquinas has successfully established that there is a first cause. The question now arises: why is God identified as this first cause? The answer, as we have seen, is that, while everything else must have a cause, God does not require one because his existence is self-caused. In this sense God is the only candidate for the job of first cause. But is this the case? For if God can be self-caused, why cannot the universe itself be self-caused? Hume writes:

But if we stop, and go no further; why go so far? Why not stop at the material world? How can we satisfy ourselves without going on *in infinitum*? And after all, what satisfaction is there in that infinite progression? Let us remember the story of the *Indian* Philosopher and his Elephant. It was never more applicable than to the present subject. If the material world rests upon a similar ideal world, this ideal world must rest upon some other; and so on, without end. It were better, therefore, never to look beyond the present material world. By supposing it to contain the principle of its order within itself, we really assert it to be God; and the sooner we arrive at that divine Being so much the better. When you go one step beyond the mundane system, you only excite an inquisitive humour, which it is impossible ever to satisfy.[24]

In referring to the Indian and the Elephant, Hume is repeating a story already told by the English philosopher John Locke (1632–1704) in another context. An Indian asserts that the world is supported by a great elephant, who in turn rests upon the back of a great tortoise; but when asked what the tortoise stands on, the Indian replies, 'something, he knows not what'.[25] Aquinas,

however, does know. This kind of causal regression must terminate with the identification of God as first cause. But for Hume this conclusion is entirely arbitrary since we are still faced with another alternative: that the first cause is not God but *the universe itself*. This possibility, which for Hume is more consistent with what we already know of the world, requires no supernatural agent or divine author: the world, evolving from a primordial supply of matter, actualizes itself. And we may note, following earlier remarks, that this is possible even if the universe consists entirely of things which individually have the possibility of not existing. Thus there is nothing contradictory in the claim that the universe came into being without a cause, or that it always existed, and that accordingly it had no beginning.

Kant's criticism of the cosmological argument

Hume's remarks drew from Immanuel Kant, in his *Critique of Pure Reason*, more general conclusions about why the causal argument fails (**SOURCE 5: PP. 86–89**).[26] The argument has an empirical starting-point – our immediate experience of causality – and from thence it seeks to establish the existence of an uncaused cause. But this transition is wholly unjustified. The principle of causality, Kant contends, must remain within the realm in which it operates, i.e., within the world of sense-experience; and it cannot be employed to convey us beyond this world to another in which it does not operate.

Critique of Pure Reason, **title page, first edition**

The principle of causality has no meaning and no criterion for its application save only in the sensible world. But in the cosmological proof it is precisely in order to enable us to advance beyond the sensible world that it is employed.[27] More generally, then, the cosmological argument fails because it attempts to reason beyond the scope of experience and thus beyond the point at which we have any guarantee that our conclusions are justified. Whether it be the

experience of causality or of the precarious and contingent nature of our existence, these experiences, while they may lead us to the hypothesis of an uncaused and necessary being, do not allow us to conclude that there actually exists such a being, that the reality of this being can be inferred from these experiences. For both Hume and Kant, therefore, any proof of the existence of God founded on the limits of sense information is an exercise in futility. It is not that God does not exist, but rather that we have, within these limits, no means of assessing the validity of an argument that says he exists. As an a posteriori proof, the cosmological argument thus begins in the world of sense and ends, predictably enough for our two authors, in the world of pure speculation.

CRITICISM (3): THE CONCEPT OF NECESSARY BEING

The final criticism of the cosmological argument – or more exactly of the argument from contingency – focuses on the concept of God as a necessary being, the objection being that this concept is meaningless. We have already met this criticism in Kant's analysis of the second form of the ontological argument.[28] Kant now repeats his objection, claiming in justification that 'the so-called cosmological proof really owes any cogency which it may have to the ontological proof from mere concepts'.[29]

Kant's remark is not entirely accurate. The ontological argument maintains that we can move from the idea of a perfect being to its existence, from the definition of X to the reality of X. The contingency argument, on the other hand, moves in an opposite direction, from existence to idea, from the empirically given fact that *something* exists to the requirement of a necessary existence to explain this fact. Unlike Anselm, therefore, Aquinas is seeking to express a relation of *ontological dependence* and not a relation of *logical implication*. To this extent, at least, the cosmological argument is immune to the criticism that one cannot derive actual existence from an initial definition.

Kant's objection

But Kant's remark does carry weight if we concentrate not on the process but on the outcome, i.e., on whether by a priori or a posteriori argumentation it can be established that there exists a being *which cannot not exist*. This explains why, in the second form of the ontological argument, it is self-contradictory to deny the existence of this being; and why, in the contingency argument, it is illegitimate to ask the question 'What brought God into existence?' This reveals the connection between the two arguments. In both it is irrational to suppose that God might not have existed, and both attest to the fact that in God existence is not an accidental quality but something intrinsic to his nature; that God, to be God, must have the characteristic of necessity.

I have already dealt with Kant's objection at this point. Employing his distinction between *analytic* and *synthetic* propositions, Kant concludes that the predicate 'necessary being' cannot be attributed to God because

this predicate is meaningless and self-contradictory. For whereas no necessary or analytic proposition can be denied without self-contradiction, all existential or synthetic propositions can be so denied. It is therefore logically impossible for *any* synthetic proposition to be logically necessary. This objection, which we find also in Hume, is taken up in our own day by several critics, most notably by J. N. Findlay, to whom I have already referred.[30]

Immanuel Kant: the Königsberg statue

We have also seen, however, that this criticism derives from a particular tendency in modern philosophical thought and ignores or is unaware of the way in which the concept of necessary being is used within the main biblical and theological tradition. For both Anselm and Aquinas necessary being does not imply, as Findlay assumes, a logically necessary existence but rather a kind of factual necessity, exemplified by the scholastic notion of *aseity* or self-existence, in which God's being, eternal and incorruptible, is causally independent of any other being. It is true that the existence of a logically necessary being cannot be denied without contradiction; but the existence of a factually necessary being can be so denied. And such denials are not, we recall, alien to the biblical tradition, although they may well be considered false and sinful by believers.

Tillich's interpretation of the cosmological argument

This interpretation of divine necessity as factual, rather than logical, necessity may well safeguard the contingency argument, and the ontological argument for that matter, from the kind of criticism offered by Kant and Findlay. There remains, however, one last point to notice. This is the way in which the concept of factual necessity has radically altered the character of the contingency argument. For if by factual necessity we mean a certain cosmological independence that cannot be rationally demonstrated but which can, and is, *experienced by belief*, then we are no longer dealing with a proof but with an argument that requires a particular psychological disposition on the part of its adherents. What we are now dealing with is faith's own expression of its dependence on God. This indeed is how the distinguished theologian Paul Tillich (1886–1965) interprets the cosmological argument. As a rational demonstration, the proof fails; but it succeeds inasmuch as it shows how the experience of contingency – what Tillich calls the experience of the threat of non-being – drives people 'to the question of being conquering non-being and

of courage conquering anxiety. This question is the cosmological question of God.'[31] In this sense, then, the anxiety felt by human beings about their own annihilation provides the cosmological route to an awareness of divine reality.

This interpretation may indeed circumvent the logical problems we have noted in this chapter; but it does so only by rejecting Aquinas' original claim to provide a demonstration a posteriori, in which the existence of God is not assumed but is the outcome of rational inference. For Tillich it may be the case that people of faith require no theistic proofs; but this was evidently not the case with Aquinas. That God exists is, of course, an article of faith; but it is also, according to Aquinas, a proposition capable of proof by the natural light of reason. But in this, as I have tried to show, Aquinas was mistaken. The existence of a necessary being cannot be demonstrated, and thus the possibility that the universe is ultimately unintelligible remains.

QUESTIONS

1 What is the difference between an a priori and an a posteriori proof? Indicate the difference by reference to the ontological and cosmological proofs for the existence of God.
2 Carefully explain the argument from cause. How does Aquinas arrive at the concept of a first cause?
3 What is the difference between a cause *in fieri* and a cause *in esse*? To what extent does this difference determine the structure of Aquinas' argument?
4 What is the principle of sufficient reason, and what is its function in the cosmological proof?
5 What is the 'fallacy of composition'? Does the causal argument commit it?
6 Analyse and discuss the claim that 'every event must have a cause'.
7 Why does Aquinas maintain that an infinite series of regressive causes is inconceivable? Do you think it inconceivable?
8 How does Aquinas, given the contingency of existence, arrive at the necessity of God's existence? Is his argument valid?

SOURCES: THE COSMOLOGICAL ARGUMENT

1 AQUINAS: THE FIVE PROOFS OF GOD'S EXISTENCE[1]

The existence of God can be proved in five ways.

The first and more manifest way is the argument from motion. It is certain, and evident to our senses, that in the world some things are in motion. Now whatever is in motion is put in motion by another, for nothing can be in motion except it is in potentiality to that towards which it is in motion; whereas a thing moves inasmuch as it is in act. For motion is nothing else than the reduction of something from potentiality to actuality. But nothing can be reduced from potentiality to actuality, except by something in a state of actuality. Thus that which is actually hot, as fire, makes wood, which is potentially hot, to be actually hot, and thereby moves and changes it. Now it is not possible that the same thing should be at once in actuality and potentiality in the same respect, but only in different respects. For what is actually hot cannot simultaneously be potentially hot; but it is simultaneously potentially cold. It is therefore impossible that in the same respect and in the same way a thing should be both mover and moved, i.e., that it should move itself. Therefore, whatever is in motion must be put in motion by another. If that by which it is put in motion be itself put in motion, then this also must needs be put in motion by another, and that by another again. But this cannot go on to infinity, because then there would be no first mover, and, consequently, no other mover; seeing that subsequent movers move only inasmuch as they are put in motion by the first mover; as the staff moves only because it is put in motion by the hand. Therefore it is necessary to arrive at a first mover, put in motion by no other; and this everyone understands to be God.

The second way is from the nature of the efficient cause. In the world of sense we find there is an order of efficient causes. There is no case known (neither is it, indeed, possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause, whether the intermediate cause be several or one only. Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first efficient cause, to which everyone gives the name of God.

The third way is taken from possibility and necessity and runs thus. We find in nature things that are possible to be and not to be, since they are found to be generated, and to corrupt, and consequently, they are possible to be and not to

be. But it is impossible for these always to exist, for that which is possible not to be at some time is not. Therefore, if everything is possible not to be, then at one time there could have been nothing in existence. Now if this were true, even now there would be nothing in existence, because that which does not exist only begins to exist by something already existing. Therefore, if at one time nothing was in existence, it would have been impossible for anything to have begun to exist; and thus even now nothing would be in existence – which is absurd. Therefore, not all beings are merely possible, but there must exist something the existence of which is necessary. But every necessary thing either has its necessity caused by another, or not. Now it is impossible to go on to infinity in necessary things which have their necessity caused by another, as has been already proved in regard to efficient causes. Therefore we cannot but postulate the existence of some being having of itself its own necessity, and not receiving it from another, but rather causing in others their necessity. This all men speak of as God.

The fourth way is taken from the gradation to be found in things. Among beings there are some more and some less good, true, noble, and the like. But 'more' and 'less' are predicated of different things, according as they resemble in their different ways something which is the maximum, as a thing is said to be hotter according as it more nearly resembles that which is hottest; so that there is something which is truest, something best, something noblest, and, consequently, something which is uttermost being; for those things that are greatest in truth are greatest in being, as it is written in Metaph. ii. Now the maximum in any genus is the cause of all in that genus; as fire, which is the maximum of heat, is the cause of all hot things. Therefore there must also be something which is to all beings the cause of their being, goodness, and every other perfection; and this we call God.

The fifth way is taken from the governance of the world. We see that things which lack intelligence, such as natural bodies, act for an end, and this is evident from their acting always, or nearly always, in the same way, so as to obtain the best result. Hence it is plain that not fortuitously, but designedly, do they achieve their end. Now whatever lacks intelligence cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence; as the arrow is shot to its mark by the archer. Therefore some intelligent being exists, by whom all natural things are directed to their end; and this being we call God.

2 TAYLOR: THE PRINCIPLE OF SUFFICIENT REASON[2]

Suppose you were strolling in the woods and, in addition to the sticks, stones, and other accustomed litter of the forest floor, you one day came upon some quite unaccustomed object, something not quite like what you had ever seen before and would never expect to find in such a place. Suppose, for example, that it is a large ball, about your own height, perfectly smooth and translucent. You would deem

this puzzling and mysterious, certainly, but if one considers the matter, it is no more inherently mysterious that such a thing should exist than that anything else should exist. If you were quite accustomed to finding such objects of various sizes around you most of the time, but had never seen an ordinary rock, then upon finding a large rock in the woods one day you would be just as puzzled and mystified. This illustrates the fact that something that is mysterious ceases to seem so simply by its accustomed presence. It is strange indeed, for example, that a world such as ours should exist; yet few men are very often struck by this strangeness, but simply take it for granted.

Suppose, then, that you have found this translucent ball and are mystified by it. Now whatever else you might wonder about it, there is one thing you would hardly question; namely, that it did not appear there all by itself, that it owes its existence to something. You might not have the remotest idea whence and how it came to be there, but you would hardly doubt that there was an explanation. The idea that it might have come from nothing at all, that it might exist without there being any explanation of its existence, is one that few people would consider worthy of entertaining.

This illustrates a metaphysical belief that seems to be almost a part of reason itself, even though few men ever think upon it; the belief, namely, that there is some explanation for the existence of anything whatever, some reason why it should exist rather than not. The sheer nonexistence of anything, which is not to be confused with the passing out of existence of something, never requires a reason; but existence does. That there should never have been any such ball in the forest does not require any explanation or reason, but that there should ever be such a ball does. If one were to look upon a barren plain and ask why there is not and never has been any large translucent ball there, the natural response would be to ask why there should be; but if one finds such a ball, and wonders why it is there it is not quite so natural to ask why it should *not* be, as though existence should simply be taken for granted. That anything should not exist, then, and that, for instance, no such ball should exist in the forest, or that there should be no forest for it to occupy, or no continent containing a forest, or no earth, nor any world at all, do not seem to be things for which there needs to be any explanation or reason; but that such things should be, does seem to require a reason.

The principle involved here has been called the principle of sufficient reason. Actually, it is a very general principle, and is best expressed by saying that, in the case of any positive truth, there is some sufficient reason for it, something which, in this sense, makes it true – in short, that there is some sort of explanation, known or unknown, for everything.

Now some truths depend on something else, and are accordingly called *contingent*, while others depend only upon themselves, that is, are true by their very natures and are accordingly called *necessary*. There is, for example, a reason why the stone on my window sill is warm; namely, that the sun is shining upon it. This happens to be true, but not by its very nature. Hence, it is contingent, and depends upon something other than itself. It is also true that all the points of a circle are equidistant from the center, but this truth depends upon nothing but itself. No matter what happens, nothing can make it false. Similarly, it is a truth, and a necessary one, that if the stone on my window sill is a body, as it is,

then it has a form, since this fact depends upon nothing but itself for its confirmation. Untruths are also, of course, either contingent or necessary, it being contingently false, for example, that the stone on my window sill is cold, and necessarily false that it is both a body and formless, since this is by its very nature impossible.

The principle of sufficient reason can be illustrated in various ways, as we have done, and if one thinks about it, he is apt to find that he presupposes it in his thinking about reality, but it cannot be proved. It does not appear to be itself a necessary truth, and at the same time it would be most odd to say it is contingent. If one were to try proving it, he would sooner or later have to appeal to considerations that are less plausible than the principle itself. Indeed, it is hard to see how one could even make an argument for it, without already assuming it. For this reason it might properly be called a presupposition of reason itself. One can deny that it is true, without embarrassment or fear of refutation, but one is then apt to find that what he is denying is not really what the principle asserts. We shall, then, treat it here as a datum – not something that is provably true, but as something which all men, whether they ever reflect upon it or not, seem more or less to presuppose.

It happens to be true that something exists, that there is, for example, a world, and while no one ever seriously supposes that this might not be so, that there might exist nothing at all, there still seems to be nothing the least necessary in this, considering it just by itself. That no world should ever exist at all is perfectly comprehensible and seems to express not the slightest absurdity. Considering any particular item in the world it seems not at all necessary in itself that it should ever have existed, nor does it appear any more necessary that the totality of these things, or any totality of things, should ever exist.

From the principle of sufficient reason it follows, of course, that there must be a reason, not only for the existence of everything in the world but for the world itself, meaning by ''the world'' simply everything that ever does exist, except God, in case there is a god. This principle does not imply that there must be some purpose or goal for everything, or for the totality of all things; for explanations need not, and in fact seldom are, teleological or purposeful. All the principle requires is that there be some sort of reason for everything. And it would certainly be odd to maintain that everything in the world owes its existence to something, that nothing in the world is either purely accidental, or such that it just bestows its own being upon itself, and then to deny this of the world itself. One can indeed *say* that the world is in some sense a pure accident, that there simply is no reason at all why this or any world should exist, and one can equally say that the world exists by its very nature, or is an inherently necessary being. But it is at least very odd and arbitrary to deny of this existing world the need for any sufficient reason, whether independent of itself or not, while presupposing that there is a reason for every other thing that ever exists.

Consider again the strange ball that we imagine has been found in the forest. Now we can hardly doubt that there must be an explanation for the existence of such a thing, though we may have no notion what that explanation is. It is not, moreover, the fact of its having been found in the forest rather than elsewhere that renders an explanation necessary. It matters not in the least where it happens

to be, for our question is not how it happens to be *there* but how it happens to exist at all. If we in our imagination annihilate the forest, leaving only this ball in an open field, our conviction that it is a contingent thing and owes its existence to something other than itself is not reduced in the least. If we now imagine the field to be annihilated, and in fact everything else as well to vanish into nothingness, leaving only this ball to constitute the entire physical universe, then we cannot for a moment suppose that its existence has thereby been explained, or the need of any explanation eliminated, or that its existence is suddenly rendered self-explanatory. If we now carry this thought one step further and suppose that no other reality ever has existed or ever will exist, that this ball forever constitutes the entire physical universe, then we must still insist on there being some reason independent of itself why it should exist rather than not. If there must be a reason for the existence of any particular thing, then the necessity of such a reason is not eliminated by the mere supposition that certain other things do *not* exist. And again, it matters not at all what the thing in question is, whether it be large and complex, such as the world we actually find ourselves in, or whether it be something small, simple and insignificant, such as a ball, a bacterium, or the merest grain of sand. We do not avoid the necessity of a reason for the existence of something merely by describing it in this way or that. And it would, in any event, seem quite plainly absurd to say that if the world were comprised entirely of a single ball about six feet in diameter, or of a single grain of sand, then it would be contingent and there would have to be some explanation other than itself why such a thing exists, but that, since the actual world is vastly more complex than this, there is no need for an explanation of its existence, independent of itself.

It should now be noted that it is no answer to the question, why a thing exists, to state *how long* it has existed. A geologist does not suppose that he explained why there should be rivers and mountains merely by pointing out that they are old. Similarly, if one were to ask, concerning the ball of which we have spoken, for some sufficient reason for its being, he would not receive any answer upon being told that it had been there since yesterday. Nor would it be any better answer to say that it had existed since before anyone could remember, or even that it had always existed; for the question was not one concerning its age but its existence. If, to be sure, one were to ask where a given thing came from, or how it came into being, then upon learning that it had always existed he would learn that it never really *came* into being at all; but he could still reasonably wonder why it should exist at all. If, accordingly, the world – that is, the totality of all things excepting God, in case there is a god – had really no beginning at all, but has always existed in some form or other, then it is clearly no answer to the question, where it came from and when; it did not, on this supposition, *come* from anything at all, at any time. But still, it can be asked why there is a world, why indeed there is a beginningless world, why there should have perhaps always been something rather than nothing. And, if the principle of sufficient reason is a good principle, there must be an answer to that question, an answer that is by no means supplied by giving the world an age, or even an infinite age.

This brings out an important point with respect to the concept of creation that is often misunderstood, particularly by those whose thinking has been influenced

by Christian ideas. People tend to think that creation – for example, the creation of the world by God – *means* creation *in time*, from which it of course logically follows that if the world had no beginning in time, then it cannot be the creation of God. This, however, is erroneous, for creation means essentially *dependence*, even in Christian theology. If one thing is the creation of another, then it depends for its existence on that other, and this is perfectly consistent with saying that both are eternal, that neither ever came into being, and hence, that neither was ever created at any point of time. Perhaps an analogy will help convey this point. Consider, then, a flame that is casting beams of light. Now there seems to be a clear sense in which the beams of light are dependent for their existence upon the flame, which is their source, while the flame, on the other hand, is not similarly dependent for its existence upon them. The beams of light arise from the flame, but the flame does not arise from them. In this sense, they are the creation of the flame; they derive their existence from it. And none of this has any reference to time; the relationship of dependence in such a case would not be altered in the slightest if we supposed that the flame, and with it the beams of light, had always existed, that neither had ever *come* into being.

Now if the world is the creation of God, its relationship to God should be thought of in this fashion; namely, that the world depends for its existence upon God, and could not exist independently of God. If God is eternal, as those who believe in God generally assume, then the world may (though it need not) be eternal too, without that altering in the least its dependence upon God for its existence, and hence without altering its being the creation of God. The supposition of God's eternality, on the other hand, does not by itself imply that the world is eternal too; for there is not the least reason why something of finite duration might not depend for its existence upon something of infinite duration – though the reverse is, of course, impossible.

If we think of God as 'the creator of heaven and earth', and if we consider heaven and earth to include everything that exists except God, then we appear to have, in the foregoing considerations, fairly strong reasons for asserting that God, as so conceived, exists. Now of course most people have much more in mind than this when they think of God, for religions have ascribed to God ever so many attributes that are not at all implied by describing him merely as the creator of the world; but this is not at all implied by describing him merely as the creator of the world; but that is not relevant here. Most religious persons do, in any case, think of God, as being at least the creator, as that being upon which everything ultimately depends, no matter what else they may say about him in addition. It is, in fact, the first item in the creeds of Christianity that God is the 'creator of heaven and earth'. And, it seems, there are good metaphysical reasons, as distinguished from the persuasions of faith, for thinking that such a creative being exists.

If, as seems clearly implied by the principle of sufficient reason, there must be a reason for the existence of heaven and earth – i.e., for the world – then that reason must be found either in the world itself or outside it, in something that is literally supranatural, or outside heaven and earth. Now if we suppose that the world – i.e., the totality of all things except God – contains within itself the reason for its existence, we are supposing that it exists by its very nature, that is, that it

is a necessary being. In that case there would, of course, be no reason for saying that it must depend upon God or anything else for its existence; for if it exists by its very nature, then it depends upon nothing but itself, much as the sun depends upon nothing but itself for its heat. This, however, is implausible, for we find nothing about the world or anything in it to suggest that it exists by its own nature, and we do find, on the contrary, ever so many things to suggest that it does not. For in the first place, anything which exists by its very nature must necessarily be eternal and indestructible. It would be a self-contradiction to say of anything that it exists by its own nature, or is a necessarily existing thing, and at the same time to say that it comes into being or passes away, or that it ever could come into being or pass away. Nothing about the world seems at all like this, for concerning anything in the world, we can perfectly easily think of it as being annihilated, or as never having existed in the first place, without there being the slightest hint of any absurdity in such a supposition. Some of the things in the universe are, to be sure, very old; the moon, for example, or the stars and the planets. It is even possible to imagine that they have always existed. Yet it seems quite impossible to suppose that they owe their existence to nothing but themselves, that they bestow existence upon themselves by their very natures, or that they are in themselves things of such nature that it would be impossible for them not to exist. Even if we suppose that something, such as the sun, for instance, has existed forever, and will never cease, still we cannot conclude just from this that it exists by its own nature. If, as is of course very doubtful, the sun has existed forever and will never cease, then it is possible that its heat and light have also existed forever and will never cease; but that would not show that the heat and light of the sun exist by their own natures. They are obviously contingent and depend on the sun for their existence, whether they are beginningless and everlasting or not.

There seems to be nothing in the world, then, concerning which it is at all plausible to suppose that it exists by its own nature, or contains within itself the reason for its existence. In fact, everything in the world appears to be quite plainly the opposite, namely, something that not only need not exist, but at some time or other, past or future or both, does not in fact exist. Everything in the world seems to have a finite duration, whether long or short. Most things, such as ourselves, exist only for a short while; they come into being, then soon cease. Other things, like the heavenly bodies, last longer, but they are still corruptible, and from all that we can gather about them, they too seem destined eventually to perish. We arrive at the conclusion, then, that while the world may contain some things which have always existed and are destined never to perish, it is nevertheless doubtful that it contains any such thing and, in any case, everything in the world is capable of perishing, and nothing in it, however long it may already have existed and however long it may yet remain, exists by its own nature, but depends instead upon something else.

While this might be true of everything in the world, is it necessarily true of the world itself? That is, if we grant, as we seem forced to, that nothing in the world exists by its own nature, that everything in the world is contingent and perishable, must we also say that the world itself or the totality of all these perishable things, is also contingent and perishable? Logically, we are not forced to, for it is logically possible that the totality of all perishable things might itself be imperishable, and

hence, that the world might exist by its own nature, even though it is comprised exclusively of things which are contingent. It is not logically necessary that a totality should share the defects of its members. For example, even though every man is mortal, it does not follow from this that the human race, or the totality of all men, is also mortal for it is possible that there will always be human beings, even though there are no human beings which will always exist. Similarly, it is possible that the world is in itself a necessary thing, even though it is comprised entirely of things that are contingent.

This is logically possible, but it is not plausible. For we find nothing whatever about the world, any more than in its parts, to suggest that it exists by its own nature. Concerning anything in the world, we have not the slightest difficulty in supposing that it should perish. or even, that it should never have existed in the first place. We have almost as little difficulty in supposing this of the world itself. It might be somewhat hard to think of everything as utterly perishing and leaving no trace whatever of its ever having been, but there seems to be not the slightest difficulty in imagining that the world should never have existed in the first place. We can, for instance, perfectly easily suppose that nothing in the world had ever existed except, let us suppose, a single grain of sand, and we can thus suppose that this grain of sand has forever constituted the whole universe. Now if we consider just this grain of sand, it is quite impossible for us to suppose that it exists by its very nature, and could never have failed to exist. It clearly depends for its existence upon something other than itself if it depends on anything at all. The same will be true if we consider the world to consist, not of one grain of sand, but of two, or of a million, or, as we in fact find, of a vast number of stars and planets and all their minuter parts.

It would seem, then, that the world, in case it happens to exist at all – and this is quite beyond doubt – is contingent and thus dependent upon something other than itself for its existence, if it depends upon anything at all. And it must depend upon something, for otherwise there could be no reason why it exists in the first place. Now that upon which the world depends must be something that either exists by its own nature or does not. If it does not exist by its own nature, then it, in turn, depends for its existence upon something else, and so on. Now then, we can say either of two things; namely, (1) that the world depends for its existence upon something else, which in turn depends on still another thing, this depending upon still another, *ad infinitum*; or (2) that the world derives its existence from something that exists by its own nature and which is accordingly eternal and imperishable, and is the creator of heaven and earth. The first of these alternatives, however, is impossible, for it does not render a sufficient reason why anything should exist in the first place. Instead of supplying a reason why any world should exist, it repeatedly begs off giving a reason. It explains what is dependent and perishable in terms of what is itself dependent and perishable, leaving us still without a reason why perishable things should exist at all, which is what we are seeking. Ultimately, then, it would seem that the world, or the totality of contingent or perishable things, in case it exists at all, must depend upon something that is necessary and imperishable, and which accordingly exists, not in dependence upon something else, but by its own nature.

3 HUME: OBJECTIONS TO THE COSMOLOGICAL ARGUMENT[3]

But farther; why may not the material universe be the necessarily existent Being, according to this pretended explication of necessity? We dare not affirm that we know all the qualities of matter; and for aught we can determine, it may contain some qualities, which, were they known, would make its non-existence appear as great a contradiction as that twice two is five. I find only one argument employed to prove, that the material world is not the necessarily existent Being; and this argument is derived from the contingency both of the matter and the form of the world. 'Any particle of matter,' it is said, 'may be *conceived* to be annihilated; and any form may be *conceived* to be altered. Such an annihilation or alteration, therefore, is not impossible.' But it seems a great partiality not to perceive, that the same argument extends equally to the Deity, so far as we have any conception of him; and that the mind can at least imagine him to be non-existent, or his attributes to be altered. It must be some unknown, inconceivable qualities, which can make his non-existence appear impossible, or his attributes unalterable: And no reason can be assigned, why these qualities may not belong to matter. As they are altogether unknown and inconceivable, they can never be proved incompatible with it.

Add to this, that in tracing an eternal succession of objects, it seems absurd to inquire for a general cause or first Author. How can any thing, that exists from eternity, have a cause, since that relation implies a priority in time and a beginning of existence?

In such a chain too, or succession of objects, each part is caused by that which preceded it, and causes that which succeeds it. Where then is the difficulty? But the WHOLE, you say, wants a cause. I answer, that the uniting of these parts into a whole, like the uniting of several distinct counties into one kingdom, or several distinct members into one body, is performed merely by an arbitrary act of the mind, and has no influence on the nature of things. Did I show you the particular causes of each individual in a collection of twenty particles of matter, I should think it very unreasonable, should you afterwards ask me, what was the cause of the whole twenty. This is sufficiently explained in explaining the cause of the parts.

Though the reasonings, which you have urged, CLEANTHES, may well excuse me, said PHILO, from starting any farther difficulties; yet I cannot forbear insisting still upon another topic. It is observed by arithmeticians, that the products of 9 compose always either 9 or some less product of 9; if you add together all the characters, of which any of the former products is composed. Thus, of 18, 27, 36, which are products of 9, you make 9 by adding 1 to 8, 2 to 7, 3 to 6. Thus 369 is a product also of 9; and if you add 3, 6, and 9, you make 18, a lesser product of 9. To a superficial observer, so wonderful a regularity may be admired as the effect either of chance or design; but a skilful algebraist immediately concludes it to be the work of necessity, and demonstrates, that it must for ever result from the nature of these numbers. Is it not probable, I ask, that the whole œconomy of the universe

is conducted by a like necessity, though no human algebra can furnish a key which solves the difficulty? And instead of admiring the order of natural things, may it not happen, that, could we penetrate into the intimate nature of bodies, we should clearly see why it was absolutely impossible, they could ever admit any other disposition? So dangerous is it to introduce this idea of necessity into the present question! And so naturally does it afford an inference directly opposite to the religious hypothesis!

4 HUME: THE RELATION OF CAUSE AND EFFECT[4]

All reasonings concerning matter of fact seem to be founded on the relation of *cause* and *effect*. By means of that relation alone we can go beyond the evidence of our memory and senses. If you were to ask a man why he believes any matter of fact which is absent, for instance, that his friend is in the country or in France, he would give you a reason, and this reason would be some other fact: as a letter received from him or the knowledge of his former resolutions and promises. A man finding a watch or any other machine in a desert island would conclude that there had once been men in that island. All our reasonings concerning fact are of the same nature. And here it is constantly supposed that there is a connection between the present fact and that which is inferred from it. Were there nothing to bind them together, the inference would be entirely precarious. The hearing of an articulate voice and rational discourse in the dark assures us of the presence of some person. Why? Because these are the effects of the human make and fabric, and closely connected with it. If we anatomize all the other reasonings of this nature, we shall find that they are founded on the relation of cause and effect, and that this relation is either near or remote, direct or collateral. Heat and light are collateral effects of fire, and the one effect may justly be inferred from the other.

If we would satisfy ourselves, therefore, concerning the nature of that evidence which assures us of matters of fact, we must inquire how we arrive at the knowledge of cause and effect.

I shall venture to affirm, as a general proposition which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings *a priori*, but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. Let an object be presented to a man of ever so strong natural reason and abilities – if that object be entirely new to him, he will not be able, by the most accurate examination of its sensible qualities, to discover any of its causes or effects. Adam, though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him. No object ever discovers, by the qualities which appear to the senses, either the causes which produced it or the

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effects which will arise from it; nor can our reason, unassisted by experience, ever draw any inference concerning real existence and matter of fact.

This proposition, *that causes and effects are discoverable, not by reason, but by experience*, will readily be admitted with regard to such objects as we remember to have once been altogether unknown to us, since we must be conscious of the utter inability which we then lay under of foretelling what would arise from them. Present two smooth pieces of marble to a man who has no tincture of natural philosophy; he will never discover that they will adhere together in such a manner as to require great force to separate them in a direct line, while they make so small a resistance to a lateral pressure. Such events as bear little analogy to the common course of nature are also readily confessed to be known only by experience, nor does any man imagine that the explosion of gunpowder or the attraction of a loadstone could ever be discovered by arguments *a priori*. In like manner, when an effect is supposed to depend upon an intricate machinery or secret structure of parts, we make no difficulty in attributing all our knowledge of it to experience. Who will assert that he can give the ultimate reason why milk or bread is proper nourishment for a man, not for a lion or tiger?

But the same truth may not appear at first sight to have the same evidence with regard to events which have become familiar to us from our first appearance in the world, which bear a close analogy to the whole course of nature, and which are supposed to depend on the simple qualities of objects without any secret structure of parts. We are apt to imagine that we could discover these effects by the mere operation of our reason without experience. We fancy that, were we brought on a sudden into this world, we could at first have inferred that one billiard ball would communicate motion to another upon impulse, and that we needed not to have waited for the event in order to pronounce with certainty concerning it. Such is the influence of custom that where it is strongest it not only covers our natural ignorance but even conceals it, and seems not to take place, merely because it is found in the highest degree.

But to convince us that all the laws of nature and all the operations of bodies without exception are known only by experience, the following reflections may perhaps suffice. Were any object presented to us, and were we required to pronounce concerning the effect which will result from it without consulting past observation, after what manner, I beseech you, must the mind proceed in this operation? It must invent or imagine some event which it ascribes to the object as its effect; and it is plain that this invention must be entirely arbitrary. The mind can never possibly find the effect in the supposed cause by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it. Motion in the second billiard ball is a quite distinct event from motion in the first, nor is there anything in the one to suggest the smallest hint of the other. A stone or piece of metal raised into the air and left without any support immediately falls. But to consider the matter *a priori*, is there anything we discover in this situation which can beget the idea of a downward rather than an upward or any other motion in the stone or metal?

And as the first imagination or invention of a particular effect in all natural operations is arbitrary where we consult not experience, so must we also esteem the supposed tie or connection between the cause and effect which binds them

together and renders it impossible that any other effect could result from the operation of that cause. When I see, for instance, a billiard ball moving in a straight line toward another, even suppose motion in the second ball should by accident be suggested to me as the result of their contact or impulse, may I not conceive that a hundred different events might as well follow from that cause? May not both these balls remain at absolute rest? May not the first ball return in a straight line or leap off from the second in any line or direction? All these suppositions are consistent and conceivable. Why, then, should we give the preference to one which is no more consistent or conceivable than the rest? All our reasonings *a priori* will never be able to show us any foundation for this preference.

In a word, then, every effect is a distinct event from its cause. It could not, therefore, be discovered in the cause, and the first invention or conception of it, *a priori*, must be entirely arbitrary. And even after it is suggested, the conjunction of it with the cause must appear equally arbitrary, since there are always many other effects which, to reason, must seem fully as consistent and natural. In vain, therefore, should we pretend to determine any single event or infer any cause or effect without the assistance of observation and experience.

Hence we may discover the reason why no philosopher who is rational and modest has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power which produces any single effect in the universe. It is confessed that the utmost effort of human reason is to reduce the principles productive of natural phenomena to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of the general causes, we should in vain attempt their discovery, nor shall we ever be able to satisfy ourselves by any particular explication of them. These ultimate springs and principles are totally shut up from human curiosity and inquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse – these are probably the ultimate causes and principles which we shall ever discover in nature; and we may esteem ourselves sufficiently happy if, by accurate inquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer, as perhaps the most perfect philosophy of the moral or metaphysical kind serves only to discover larger portions of it. Thus the observation of human blindness and weakness is the result of all philosophy, and meets us, at every turn, in spite of our endeavors to elude or avoid it.

5 KANT: THE IMPOSSIBILITY OF A COSMOLOGICAL PROOF[5]

The *cosmological proof* which we are now about to examine, retains the connection of absolute necessity with the highest reality, but instead of reasoning,

like the former proof (the ontological), from the highest reality to necessity of existence, it reasons from the previously given unconditioned necessity of some being to the unlimited reality of that being. It thus enters upon a course of reasoning which, whether rational or only pseudo-rational, is at any rate natural, and the most convincing not only for common sense but even for speculative understanding. It also sketches the first outline of all the proofs in natural theology, an outline which has always been and always will be followed, however much embellished and disguised by superfluous additions. This proof, termed by Leibniz the proof a *contingentia mundi*, we shall now proceed to expound and examine. It runs thus: If anything exists, an absolutely necessary being must also exist. Now I, at least, exist. Therefore an absolutely necessary being exists. The minor premiss contains an experience, the major premiss the inference from there being any experience at all to the existence of the necessary. The proof therefore really begins with experience, and is not wholly *a priori* or ontological. For this reason, and because the object of all possible experience is called the world, it is entitled the *cosmological* proof. Since, in dealing with the objects of experience, the proof abstracts from all special properties through which this world may differ from any other possible world, the title also serves to distinguish it from the physico-theological proof, which is based upon observations of the particular properties of the world disclosed to us by our senses.

The proof then proceeds as follows: The necessary being can be determined in one way only, that is, by one out of each possible pair of opposed predicates. It must therefore be *completely* determined through its own concept. Now there is only one possible concept which determines a thing completely *a priori*, namely, the concept of the *ens realissimum*. The concept of the *ens realissimum* is therefore the only concept through which a necessary being can be thought. In other words, a supreme being necessarily exists.

…In order to lay a secure foundation for itself, this proof takes its stand on experience, and thereby makes profession of being distinct from the ontological proof, which puts its entire trust in pure *a priori* concepts. But the cosmological proof uses this experience only for a single step in the argument, namely, to conclude the existence of a necessary being. What properties this being may have, the empirical premiss cannot tell us. Reason therefore abandons experience altogether, and endeavours to discover from mere concepts what properties an absolutely necessary being must have, that is, which among all possible things contains in itself the conditions (*requisita*) essential to absolute necessity. Now these, it is supposed, are nowhere to be found save in the concept of an *ens realissimum*; and the conclusion is therefore drawn, that the *ens realissimum* is the absolutely necessary being. But it is evident that we are here presupposing that the concept of the highest reality is completely adequate to the concept of absolute necessity of existence: that is, that the latter can be inferred from the former. Now this is the presupposition maintained by the ontological proof, and indeed made the basis of the proof; and yet it is an assumption with which this latter proof has professed to dispense. For absolute necessity is an existence determined from mere concepts. If I say, the concept of the *ens realissimum* is a concept, and indeed the only concept, which is appropriate and adequate to necessary existence, I must also admit that necessary existence can be inferred from this concept. Thus the

so-called cosmological proof really owes any cogency which it may have to the ontological proof from mere concepts. The appeal to experience is quite superfluous; experience may perhaps lead us to the concept of absolute necessity, but is unable to demonstrate this necessity as belonging to any determinate thing. For immediately we endeavour to do so, we must abandon all experience and search among pure concepts to discover whether any one of them contains the conditions of the possibility of an absolutely necessary being. If in this way we can determine the possibility of a necessary being, we likewise establish its existence. For what we are then saying is this: that of all possible beings there is one which carries with it absolute necessity, that is, that this being exists with absolute necessity…

I have stated that in this cosmological argument there lies hidden a whole nest of dialectical assumptions, which the transcendental critique can easily detect and destroy. These deceptive principles I shall merely enumerate, leaving to the reader, who by this time will be sufficiently expert in these matters, the task of investigating them further, and of refuting them.

We find, for instance, (1) the transcendental principle whereby from the contingent we infer a cause. This principle is applicable only in the sensible world; outside that world it has no meaning whatsoever. For the mere intellectual concept of the contingent cannot give rise to any synthetic proposition, such as that of causality. The principle of causality has no meaning and no criterion for its application save only in the sensible world. But in the cosmological proof it is precisely in order to enable us to advance beyond the sensible world that it is employed. (2) The inference to a first cause, from the impossibility of an infinite series of causes, given one after the other, in the sensible world. The principles of the employment of reason do not justify this conclusion even within the world of experience, still less beyond this world in a realm into which this series can never be extended. (3) The unjustified self-satisfaction of reason in respect of the completion of this series. The removal of all the conditions without which no concept of necessity is possible is taken by reason to be a completion of the concept of the series, on the ground that we can then conceive nothing further. (4) The confusion between the logical possibility of a concept of all reality united into one (without inner contradiction) and the transcendental possibility of such a reality. In the case of the latter there is needed a principle to establish the practicability of such a synthesis, a principle which itself, however, can apply only to the field of possible experiences – etc.

The procedure of the cosmological proof is artfully designed to enable us to escape having to prove the existence of a necessary being *a priori* through mere concepts. Such proof would require to be carried out in the ontological manner, and that is an enterprise for which we feel ourselves to be altogether incompetent. Accordingly, we take as the starting-point of our inference an actual existence (an experience in general), and advance, in such manner as we can, to some absolutely necessary condition of this existence. We have then no need to show the possibility of this condition. For if it has been proved to exist, the question as to its possibility is entirely superfluous. If now we want to determine more fully the nature of this necessary being, we do not endeavour to do so in the manner that would be really adequate, namely, by discovering from its concept the necessity of its existence.

For could we do that, we should be in no need of an empirical starting-point. No, all we seek is the negative condition (*conditio sine qua non*), without which a being would not be absolutely necessary. And in all other kinds of reasoning from a given consequence to its ground this would be legitimate; but in the present case it unfortunately happens that the condition which is needed for absolute necessity is only to be found in one single being. This being must therefore contain in its concept all that is required for absolute necessity, and consequently it enables me to infer this absolute necessity *a priori*. I must therefore be able also to reverse the inference, and to say: Anything to which this concept (of supreme reality) applies is absolutely necessary. If I cannot make this inference (as I must concede, if I am to avoid admitting the ontological proof), I have come to grief in the new way that I have been following, and am back again at my starting-point. The concept of the supreme being satisfies all questions *a priori* which can be raised regarding the inner determinations of a thing, and is therefore an ideal that is quite unique, in that the concept, while universal, also at the same time designates an individual as being among the things that are possible. But it does not give satisfaction concerning the question of its own existence – though this is the real purpose of our enquiries – and if anyone admitted the existence of a necessary being but wanted to know which among all [existing] things is to be identified with that being, we could not answer: ''This, not that, is the necessary being.''

We may indeed be allowed to *postulate* the existence of an all-sufficient being, as the cause of all possible effects, with a view to lightening the task of reason in its search for the unity of the grounds of explanation. But in presuming so far as to say that such a being *necessarily exists*, we are no longer giving modest expression to an admissible hypothesis, but are confidently laying claim to apodeictic certainty. For the knowledge of what we profess to know as absolutely necessary must itself carry with it absolute necessity.

The whole problem of the transcendental ideal amounts to this: either, given absolute necessity, to find a concept which possesses it, or, given the concept of something, to find that something to be absolutely necessary. If either task be possible, so must the other; for reason recognises that only as absolutely necessary which follows of necessity from its concept. But both tasks are quite beyond our utmost efforts to *satisfy* our understanding in this matter; and equally unavailing are all attempts to induce it to acquiesce in its capacity.

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chapter 3
THE ARGUMENT FROM DESIGN

COMMENTARY

INTRODUCTION

Distinctive form as a cosmological proof

The most popular of all the arguments for the existence of God is the argument from design, otherwise known as the teleological argument (from the Greek *telos*, meaning 'end' or 'goal').[1] As its name suggests, the design argument is another type of cosmological argument, basing its conclusions not so much on *that* the universe (*cosmos*) exists but rather on that it exists *in a particular way* – namely, that it exhibits order and design. From this it also follows that the design argument is a posteriori in character, which is to say that, unlike the ontological argument, it does not claim that its conclusions are logically true – true, that is, in the sense that to deny them would be self-contradictory. But here we should draw a distinction. The cosmological argument, as Aquinas presented it, began with certain empirical facts, which he claimed are so evident to our senses that they are undeniable, i.e., that things move, are caused, and exist. Aquinas drew out the logical implications of these facts, and concluded that they must depend on an absolutely necessary being. The design argument follows a different route. For although it begins with what it takes to be an empirical fact – the fact that the world exhibits order and design – it establishes the world's ontological dependence on God not by a series of deductive steps but by a *comparative study* between this world and other things that exhibit design. The evidence it presents, in other words, is derived primarily from a *study of parallel cases* of design; and these cases, so it claims, while not establishing God's existence conclusively, do confer upon it a high degree of probability.

THE ARGUMENT STATED (1)

Like the ontological and cosmological arguments, the design argument has had a distinguished history. We find perhaps the earliest reference to it in the work of the Stoic philosopher Anaxagoras, and there are more extended discussions in Plato's dialogues *Timaeus* and *Philebus*. In medieval theology the argument won general acceptance – largely because of the pervasive influence of Aristotelian physics, according to which all natural objects act in a purposeful or teleological manner – and it figures as the fifth of Aquinas' 'Five Ways' in his *Summa Theologiae*. The argument was particularly popular in the eighteenth

and nineteenth centuries, and here the most famous example is from William Paley's *Natural Theology* (1802). More recent formulations are presented by F. R. Tennant (1928–1930), A. E. Taylor (1945), Peter Bertocci (1951), Richard Taylor (1963), Alvin Plantinga (1967) and Richard Swinburne (1979).[2]

As might be expected from their earlier attacks on the cosmological argument, the two outstanding critics are Hume and Kant; and it is fair to say that contemporary criticism largely follows their arguments.[3] This is not to say, however, that Hume and Kant were unaware of the enormous appeal of this argument. Kant calls it the 'physico-theological proof ' and always mentions it with respect, calling it 'the oldest, the clearest, and the best suited to ordinary human reason';[4] and Hume presents a classic account of it in his *Dialogues Concerning Natural Religion* (1779). Here one of Hume's main characters, Cleanthes, argues as follows:

Hume's summary of the argument

Look round the world: Contemplate the whole and every part of it: You will find it to be nothing but one great machine, subdivided into an infinite number of lesser machines, which again admit of subdivisions, to a degree beyond what human senses and faculties can trace and explain. All these various machines, and even their most minute parts, are adjusted to each other with an accuracy, which ravishes into admiration all men, who have ever contemplated them. The curious adapting of means to ends, throughout nature, resembles exactly, though it much exceeds, the productions of human contrivance; of human design, thought, wisdom, and intelligence. Since therefore the effects resemble each other, we are led to infer, by all the rules of analogy, that the causes also resemble; and that the Author of nature is somewhat similar to the mind of man; though possessed of much larger faculties, proportioned to the grandeur of the work, which he has executed. By this argument a posteriori, and by this argument alone, do we prove at once the existence of a Deity, and his similarity to human mind and intelligence.[5]

The simplicity of this argument is part of its appeal. Investigation of the physical, chemical and biological aspects of our world reveals a pattern or order in nature. We notice the regularity of the seasons, the movement of planets, the growth and regeneration of plant life, the mechanism of the human body,

and so forth. But still more remarkably, this order or pattern is not merely seen in the general plan of the universe but reaches down to the more intricate and minute relationships within its parts. To quote Sir Isaac Newton (1642–1727):

Whence is it that the eyes of all sorts of living creatures are transparent to the very bottom…with a crystalline lens in the middle and a pupil before the lens, all of them so finely shaped and fitted for vision that no artist can mend them? Did blind chance know that there was light, and what was its refraction, and fit the eyes of all creatures after the most curious manner to make use of it? These and suchlike considerations always have and ever will prevail with mankind to believe that there is a Being who made all things and has all things in his power, and who is therefore to be feared.[6]

Parallel cases of design

Why the order observed in nature should point to the existence of a 'Being who made all things' has already been anticipated. This conclusion results from a *study of parallel cases of design*. The natural order bears a strong resemblance to what we see in the man-made world. Here, too, human artifacts, like the washing-machine or word-processor, do not merely act in an orderly fashion but act to achieve some goal; and here also the various individual parts of the mechanism are so harmoniously adjusted to each other that the intended result is achieved. We additionally know, however, that this 'curious adapting of means to ends', to use Hume's phrase, is the result of human intelligence and planning; that indeed it would be absurd to suppose that something as complex as, say, the motor-car could be due to some kind of cosmic accident. Since therefore the *effects* of human contrivance are so similar to the effects that we discover in the natural world, we may legitimately infer that the *causes* which produce these effects are similarly alike. So, just as in cases of human manufacture the cause is human intelligence, so in the cases of natural phenomena the cause must also be an intelligence of some kind; and since, moreover, the complexity of the universe vastly exceeds the complexity of anything man-made, we may further infer that this designer vastly exceeds in intelligence any human designer, that it is indeed a divine intelligence.

All these features of the design argument appear again in its most celebrated version, given by the former archdeacon of Carlisle, William Paley, in his *Natural Theology* of 1802 (**SOURCE 1: PP. 145–146**).[7]

Paley's watch

Paley's account proceeds as follows. If, while walking across a barren wasteland, I saw a stone and wondered how it came to exist, I could legitimately account for it through chance factors like wind, heat and rain, etc. I would not, however, come to the same conclusion if I came across a watch. For such is its

William Paley (1743–1805)

Educated at Christ's College, Cambridge, Paley was appointed fellow and tutor there in 1766, where he quickly established himself as skilled lecturer on metaphysics, morals and the Greek Testament. He was ordained as an Anglican priest in 1767 and subsequently became archdeacon of Carlisle in 1782. In his own day Paley became famous as a writer of influential textbooks on utilitarian moral philosophy and Christianity. His *A View of the Evidences of Christianity* (1794) went through many editions and was required reading for entrance to Cambridge until the twentieth century. An equally famous book, *Natural Theology* (1802), provided the standard exposition for many years of the design argument, including as it does his famous, some would say notorious, comparison between the universe and a watch. An unoriginal thinker – even the watch analogy is an alleged plagiarism – Paley excelled as an educator, and his unfussy way of presenting arguments had a substantial influence on many generations of students, including Charles Darwin.

manifest complexity – with all its wheels, cogs, gears and springs operating together to measure the passage of time – that it would be absurd to suppose that it too owed its existence to a set of chance occurrences. Thus we must postulate some intelligence at work in the watch's creation: a watchmaker. Paley further claims that this conclusion is not weakened (1) if we have never seen a watch being made and are incapable of making a watch ourselves; (2) if the watch can, and does, sometimes go wrong; and (3) if there are parts of the watch we do not understand.

Having established the connection between, on the one hand, the evidence of design in the watch and, on the other, the need for a designer to explain that design, Paley extends his argument to the universe generally and to particular natural objects within it. He details the many evidences of design in natural organisms and organs, notes the division between animals and vegetables and the further sub-division of each into genera and species, and, like Sir Isaac Newton, pays particular attention to that miracle of creation, the human eye, the examination of which is virtually a cure for atheism. 'Were there no example in the world of contrivance except the *eye*, it would be alone sufficient to support the conclusion which we draw from it, as to the necessity of an intelligent creator.'[8] Such wonderful intricacy, such subserviency of means to an end, surpassing anything that the human mind can create, implies the presence of mind and the activity of a rational being employing his intelligence not merely in the eye's construction but in the creation of all that is.

SUMMARY: THE DESIGN ARGUMENT

In summary, then, the design argument moves through six stages:

1   Man-made machines act to achieve some end or goal.
2   The universe, although infinitely more complex, resembles a vast man-made machine.
3   Man-made machines are the products (effects) of intelligent design (cause).
4   Like effects have like causes.

Therefore

5   Probably the cause of the universe is an intelligent being.
6   This cause is God.

EXERCISE 3.1

Construct a design argument on the basis of the following phenomena:

The eye   Planetary motion
Venomous snakes   Snowflakes
Rocks

THE ARGUMENT (2): INDUCTION AND ANALOGY

Commentators frequently point to a further feature of the design argument, namely, that it is both *inductive* and *analogical*. I shall now explain these terms in some detail. As we shall see in a moment, it is a major criticism of the argument that it employs induction and analogy improperly.

INDUCTION

Induction contrasted with deduction

Induction is generally contrasted with *deduction*. Deduction is the process of reasoning applicable to the knowledge reached independently of our experience and observation (a priori) and thus generates propositions regarded as necessarily or analytically true or false, for example, the truths of logic and pure mathematics. Induction, on the other hand, is the process of reasoning applicable to the knowledge dependent on empirical knowledge (a posteriori) and thus generates propositions regarded as contingently or synthetically true or false. More technically, and to recall Kant's earlier examples,[9] in a deductive
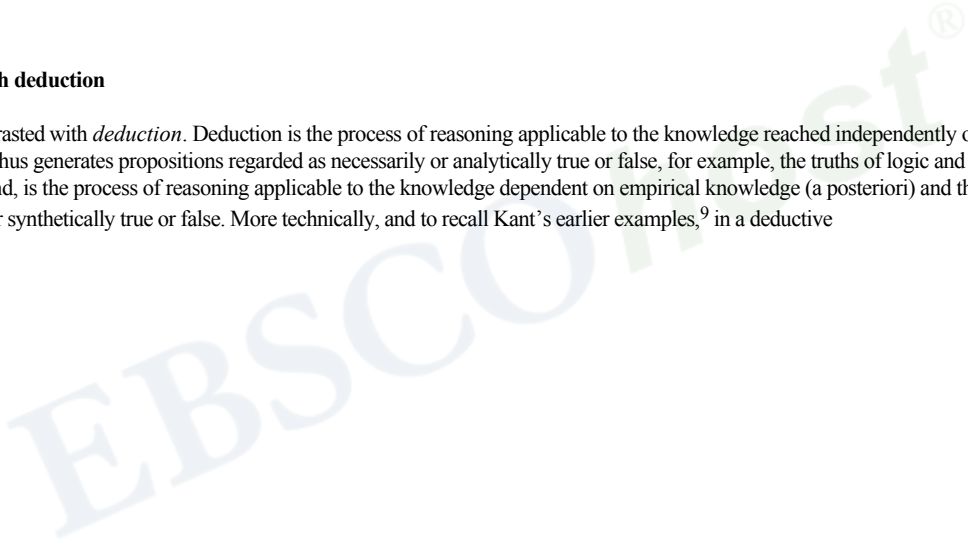
argument the conclusion is entailed in the premiss (for example, A triangle is a three-sided figure); and in an inductive argument the conclusion is not so entailed, although the premiss may justify our acceptance of the conclusion as highly probable (for example, This ball is red).

Consider, for example, the statement 'All men are mortal.' Why is this a proposition about which we have not the slightest doubt? The reason is that we have, unwittingly perhaps, applied an inductive procedure known as 'simple enumeration'. This involves no more than counting the instances and finding them all to have a certain property. So:

1   Matthew died.
2   Mark died.
3   John died.
4   Therefore all men die.

It is important to realize, however, that the conclusion that all men die is not conclusively certain, since indeed the appearance of a single exception would invalidate it. While the statements about Matthew, Mark and John may thus be true, this does not exclude the possibility (however remote) that there is someone now living, or someone yet unborn, who will live for ever, and that therefore the conclusion about the mortality of *all* men is false. All that can be hoped for in this case is that the more frequently we observe object O to have the property P, the more probable it is that another O-type will exhibit the same property. The reasoning we employ is, in this sense, *retrospective*: from our observations of what has happened in the past we draw probable conclusions about what will happen in the future; and the more evidence we can accumulate about the invariability of what has happened in the past, the more certain we can be about the likelihood of its future repetition.

EXERCISE 3.2

Which of the following claims to knowledge is dependent on deductive or inductive reasoning?

I know that…
this brick will fall if I drop it.
I am not a millionaire.
I will die some day.
I am awake and not asleep.
rats are rats.
rats have tails.

a square is not a triangle.
a know-all knows everything.
an omniscient being knows everything.
a straight line is the shortest
distance between two points.
friction causes heat.
all crows are black.
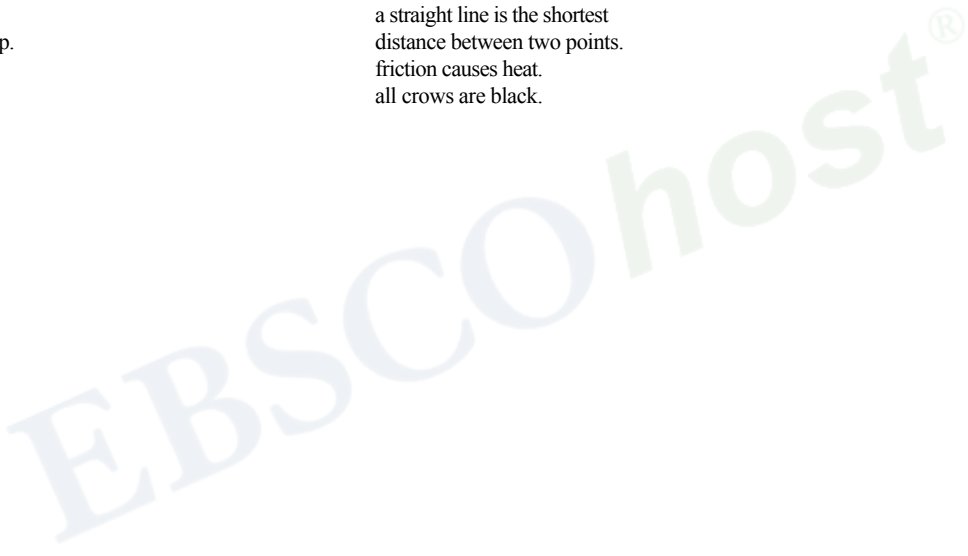
ANALOGY

Analogy: an argument from resemblances

Analogy is a form of induction, which makes it clear at once that an argument from analogy is never conclusive but is rather a matter of higher or lesser degrees of probability, and further that, as with all inductive procedures, the accuracy of its conclusions will depend largely on the amount of data available and how specifically relevant these data are to the conclusion being sought. In an analogical argument, however, the data used depend not so much on the accumulation of instances ('simple enumeration') as on the resemblances observed between these instances. An argument from analogy is, therefore, *an argument from resemblances*. These resemblances are then used to support additional claims that these instances further resemble each other in ways that are not immediately observable or testable.

Let us suppose, for example, that we want to discover whether object O has property P, where P cannot be known directly. If we compare O with other objects (Bs) that we know possess the property P, and if we find that O resembles these objects in other respects, we may legitimately conclude that O also resembles them in possessing the property P, even though we have not observed them to resemble each other in this respect. For example, let us assume that O is a particularly ferocious animal, recently discovered, called a Laycock. Let us further suppose that P is the property of having a brain. What we want to establish is whether it is reasonable or unreasonable to suppose that a Laycock has a brain. Since in form, behaviour, habitat and diet, the Laycock bears a striking *resemblance* to various members of the ape family (Bs) – it being a tailless monkey, like a gorilla, chimpanzee or gibbon (all of which do possess brains) – we may conclude that a Laycock has a brain as well. This conclusion is not reached by dissection of the Laycock, but by the process of analogy. Since the Laycock (O) and apes (Bs) are alike in various respects, it is fair to assume that they further resemble each other in another respect, that is, in possessing the property P (brains).

Fallacy of the affirmation of the consequent

This assumption, to repeat, is not conclusive. That O resembles other objects (Bs) in various ways does not in itself prove that it resembles them in another way (that it has the property P). Indeed, to suppose that it does is to commit a well-known logical mistake, known as the fallacy of the 'affirmation of the consequent'. The logical form is:

A implies B;

B is true;

Therefore A is true

or:

When Max has had no food, he gets angry;

Max is angry

Therefore Max has had no food.

The fallacy displayed here seems fairly obvious. There may be a whole host of reasons, quite apart from his digestion, that account for Max's irritability: he

may have had a row with his wife or received an unpleasant letter from his bank manager. There may therefore be a great number of causes which have the same effect, or, to put it more technically, there may be more than one antecedent which leads to a particular consequent. Therefore neither retrospective reasoning, which we found in the inductive procedure of 'simple enumeration', nor comparative reasoning, which we found in the resemblances of analogy, can exclude the possibility of error. Evidently a theory which conflicts with the facts cannot be true; but if there is more than one theory which can account for those facts, there is no logical necessity why one should prefer one theory over another merely because it agrees with the evidence. Thus, despite the resemblances of the Laycock (O) to apes (Bs) and the legitimate inference of the possession of a brain (P) it remains a permanent possibility that dissection might reveal no brain at all.

EXERCISE 3.3

Which of these statements commits the fallacy of the affirmation of the consequent?

Coffee keeps me awake; I had a bad night, so I drank coffee before bed.

If George didn't do it, he wouldn't be hiding; but he is hiding, so he did it.

The house is untidy, so young David's holiday must have started.

Charles I lost his head, so he died.

Cigarette-smoking causes cancer; she has cancer, so she smokes.

'I shot him through the heart.' 'No, you didn't: he's still standing.'

If Toots is a mother, Toots must be female. Toots is a female. Therefore Toots is a mother.

If I am in Edinburgh, then I am in Scotland. I am in Scotland. Therefore I am in Edinburgh.

Both light-bulbs and stars emit light; light-bulbs require electricity to do this; therefore stars require electricity to emit light.

THE ARGUMENT (3): ITS ANALOGICAL FORM

The rules of analogy

Let us now return to the design argument. We remember that, in Hume's account of it, Cleanthes appeals directly to the 'rules of analogy'; and certainly his presentation, like Paley's, falls neatly into the scheme of analogical reasoning we have just described. First, a comparison is made between two classes of objects – artifacts and organisms – and attention is then drawn to a remarkable resemblance between them, namely, the degree to which both adapt their means to ends. So the regular operation of the gears in a watch, which results in the accurate measurement of hours, can be compared to the regular movement of

the earth round the sun, which accounts for the transition from night to day. Next, by treating both artifacts and organisms as *effects*, Cleanthes and Paley may inductively infer that, following this similarity in adaptation, their *causes* are also similar, i.e., that both artifacts and organisms are the products of intelligent design. Thus, because a watch has property P (for example, the property of functional adaptation), and because the universe is also observed to have property P, we may legitimately conclude, in the absence of specific evidence to the contrary, that the universe also resembles a watch *in another respect*: namely, in the all-important respect of possessing the additional property, the property of having an intelligent designer and creator. And finally, given that the degree of adaptation in organisms is far greater and more complex than anything we find among human artifacts, we may further conclude that the intelligence at work in the manufacture of organisms is infinitely greater than any human intelligence. And to this supremely intelligent creator we give the name 'God '.

It is worth stressing here that, like all inductive and analogical arguments, the design argument does not offer, nor does it seek to offer, conclusive proof – indeed, if it did so, it could no longer be counted an induction. That object O and object B resemble each other in possessing various properties is not in itself evidence that O must further resemble B in possessing an additional property to account for those properties. Here we may again invoke the fallacy of affirming the consequent. That the *effects* may be the same does not *prove* that the causes are the same. Thus the similarity in functional adaptation between artifact and organism or between watch and universe does not demonstrate conclusively that a controlling mind is at work in the creation of either. In the case of the watch, of course, this is unlikely because of the innumerable instances in which watches have been observed to be created by watchmakers. Here we may invoke the principle of simple enumeration: 'All observed Os have the property P. Therefore (probably) all Os have the property P.' But this is evidently not the case with a universe, where no such universe-maker has been or could be observed. Thus it has to be allowed that a multiplicity of theories could account for the phenomenon of order and design without supposing the existence of a designer.

It is worth reminding ourselves, however, that proponents of the design argument are willing to concede this point. To repeat, an inductive-analogical argument does not render an alternative explanation impossible, but it does render it unlikely. Again, it is the *degree of probability* involved which allows us to discount any other hypothesis. Thus you may confidently purchase a Cadillac on the grounds that it will have the same characteristics as the Cadillac you tested beforehand. You have to allow, of course, that your confidence *may* be misplaced – that by some fault in manufacture the car you buy will lack the qualities of the car you tested – but it is still a legitimate expectation that this will not be the case; and accordingly it is not an error of reasoning in this instance to buy with confidence. So too with the design argument. As an a posteriori argument for the existence of God it does not seek to exclude doubt but rather to render such doubt unreasonable. So this argument too may be bought with confidence. True, the existence of God cannot be conclusively

verified by observation; nor can it, if the ontological argument is anything to go by, be demonstrated a priori. But this is not to say that the claim that God exists cannot be supported on the basis of certain inductive inferences. We may agree, then, that no deductive argument will be forthcoming to defend religious belief; but the inductive argument looks strong nonetheless, based as it is on the analogical principle of parallel cases, and may thus be regarded as sufficient to meet the needs of faith.

There is, however, one final feature of the design argument to mention. Advocates of this argument are well aware that their analogical thinking is concerned not with literal resemblances but with showing how the same inductive inference from design to designer can be discerned in different modes: on the one hand, the relation of watch to watchmaker, and, on the other, the relation of universe to God. The presupposition of this argument is clear enough. This inductive inference is so fundamental that it can be repeated in each mode, and can accordingly be formulated both in terms of the structure of the microcosm (the relation of artifact to artificer) and in terms of the structure of the macrocosm (the relation of God to the universe). This allows us to extend the inference from one dimension to another, and thereby to illustrate the relation of dependence which obtains between God and his creation by means of analogies drawn from our own immediate experience.

But what justifies this extension? What makes us so certain that the requirement of a watchmaker for a watch is duplicated in the relation of God to universe? What makes the existence of such a being, if not a matter of logical necessity, at least a matter of high probability for theists?

Design presupposes uniformity of nature

The answer lies in the final and most basic presupposition of the design argument. This is that there is a fundamental *order of things* to be discerned in every part of the universe, so that the structure of a certain part, such as belongs to organisms, can be inferred from the structure of another part, such as belongs to artifacts. This assumption of a *uniformity of nature* is similarly implied in every case of induction. We observe A followed by B not once, not twice, but a hundred times, and may thus safely predict that the next time we see A we shall also see B. In this sense we assume that nature is repetitious – that the sun will rise tomorrow because it rose today – and, on the basis of these recurring uniformities, we formulate certain laws regarding future states of affairs: that arsenic is poisonous, that fire warms, that all men die, and so on.

Like effects have like causes

The same assumption is at work in all arguments from analogy, summarized in the notion, which forms the backbone of the design argument, that *like effects require like causes*. If we have variously observed a connection between the effect B (for example, machines) and the cause A (for example, mechanics), then by analogy when we meet a new instance of B we may infer that it must have had a cause A. Here the regularity of nature is presumed not merely in our observation that all machines require mechanics but also in our further assumption that, when we see a new machine, whose creation we cannot directly observe, we may by analogy infer that here too a mechanic has been at work. The design argument follows this same pattern and requires the same presumption of a uniformity in nature. It is saying that there is a resemblance between things

like machines and the universe, and that, since we have observed all machines to have mechanics, we are entitled to infer by analogy that the universe also has a mechanic.

This, to repeat, is not a logical proof – no argument from analogy can be that. This explains why we must always allow that, however many machines we may have observed to have mechanics, and however convinced we may be that all future machines will have mechanics, the machine now under examination did not have a mechanic. All we can say is that it most probably had one. But the non-deductive character of this argument is not seen as a weakness by those who use it to demonstrate God's existence. Rather it is seen as a strength, placing the argument fully in line with the problematic character of all empirical observations. Here we are dealing with probabilities and not with logical certainties. Their claim is rather that the uniformity of nature observed within our world is such that it is as probable that the world has a designer as it is that any machine we come across has a mechanic. And the more instances we can call upon to reinforce this understanding of machines, the more likely becomes our interpretation of the world's origin. These instances are almost infinitely numerous. Thus to deny that the world has a designer is to deny the cumulative evidence of our senses.

EXERCISE 3.4

Which of the following are examples of sound or unsound analogical reasoning?

345 is to 346 as 678 is to (a) 347 (b) 677 (c) 679

Dog is to bark as horse is to…?

There is life on earth; therefore there is life on Pluto.

There are buildings on Pluto; there therefore is or has been life on Pluto.

I have a right to life; therefore the foetus has a right to life.

Marriages are made in heaven, not on earth; therefore divorce is always immoral.

I understand Hamlet's distress: I had a girlfriend just like Ophelia.

I can imagine how angry she must have been when she missed her flight: the same thing's happened to me.

I don't steal and neither should you (even though you are a kleptomaniac).

The jury acquitted the battered wife of murdering her husband: they knew they'd have done the same.
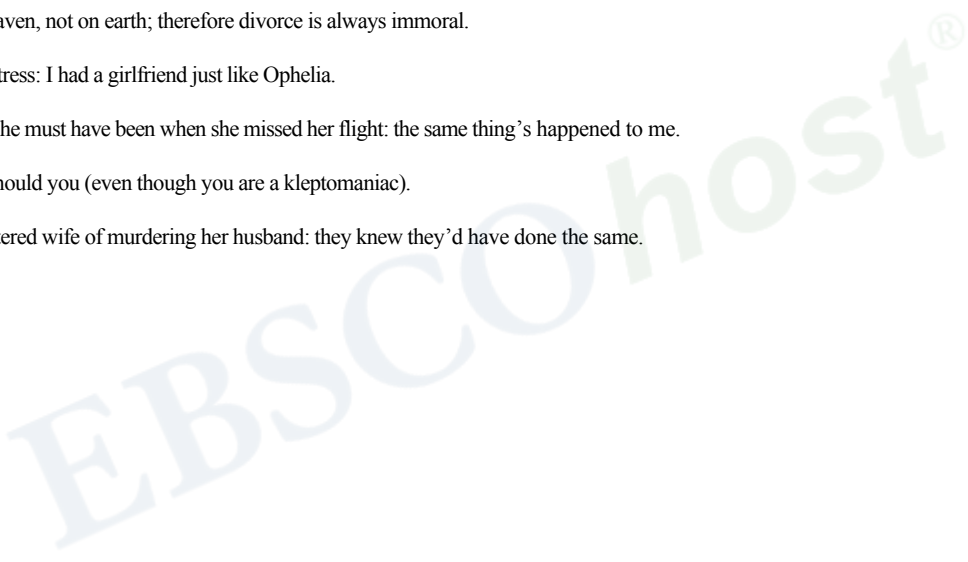
HUME'S CRITIQUE OF THE DESIGN ARGUMENT

In his *Dialogues Concerning Natural Religion* (**SOURCE 2: PP. 146–153**) Hume (in the guise of Cleanthes) presents one of the most celebrated summaries of the design argument, followed by its most famous critique; and it is one of the more piquant curiosities of philosophical history that his criticism was presented some twenty-three years *before* Paley's presentation of the case. Not that this provides Paley with much consolation. Being oblivious of Hume's criticisms, Paley does not answer them. Hume, on the other hand, is at least aware of the type of argument that Paley presents, even to the point of considering the analogy of a watch. This analogy indeed was a fairly commonplace one – to the extent that Paley was accused of plagiarism when he introduced it – and can be traced as far back as Cicero's *De Natura Deorum*, to which Hume also refers.[10]

Hume's preliminary critique of the design argument appears in Section XI of Hume's *An Enquiry Concerning Human Understanding* (1748), and he gives a more general account of its importance for religious belief in his *The Natural History of Religion* (1757); but his most sustained attack is found in his posthumous *Dialogues Concerning Natural Religion* (1779), a book described (accurately, in my view) by Terence Penelhum as 'in all respects [Hume's] maturest work… beyond any question the greatest work on philosophy of religion in the English language'.[11] The *Dialogues* took over twenty-five years to write (from 1751 to 1776) and were finished only shortly before the author's death in 1776. It is a measure of its controversial character that both its original dedicatee, Professor Hugh Blair of Edinburgh University, and his literary executor, Adam Smith, advised against publication, fearing that it would bring down on Hume, and probably on them as well, accusations of infidelity and atheism. It was thus left to Hume's 22-year-old nephew, young David Hume, to publish the book anonymously three years after his uncle's death.

The *Dialogues* constitute a dispute between three men, Demea, Cleanthes and Philo. This presents some difficulties for scholars because it is unclear which, if any, of the three expresses Hume's own position. I shall assume, in line with most other commentators, that Hume is represented by Philo. Certainly it is he who presents the crucial objections to the design argument.[12] These criticisms concentrate on three main areas of debate:

1	**The uniqueness of the universe**
2	**The diversity of causal explanation**
3	**The principle of proportionality.**
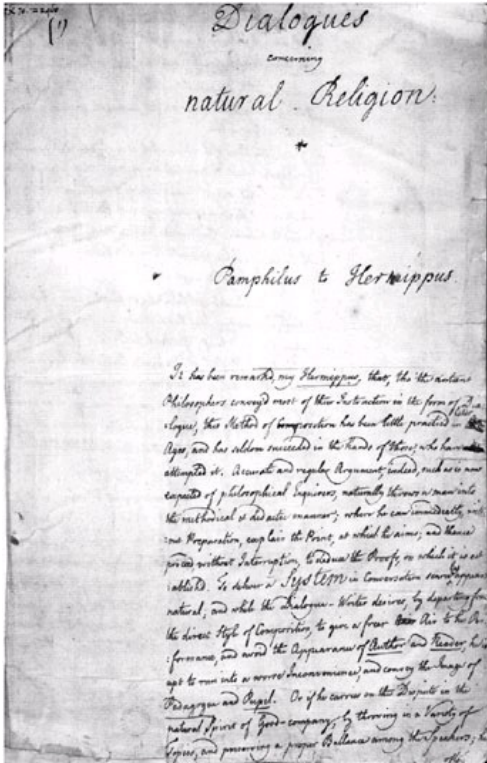
Manuscript page from Hume's *Dialogues Concerning Natural Religion*

THE UNIQUENESS OF THE UNIVERSE

Hume's criticism of the argument's analogical structure

Here Hume attacks the analogical form of the design argument. Analogy, we remember, depends on a demonstration of *resemblances*. If an object (O) resembles B in possessing certain properties (Ps), then we may legitimately infer that O will also resemble B in possessing the additional property (Y). The greater the resemblance, the stronger the inference. But by the same token, the weaker the resemblance, the weaker the inference. For Hume, therefore, the supposition that the universe and human artifacts have property Y in common (i.e., the property of being designed) is not compelling because the more general resemblances (Ps) between the two are insufficient to support it. So, while it may be perfectly legitimate to infer that, if blood circulates in George, it will also circulate in Bob, it becomes less plausible on that account to assert that sap circulates in vegetables – the greater the difference in cases,

the more implausible is any analogical inference based on them. Take, for example, a comparison between a house and the universe:

If we see a house, Cleanthes, we conclude, with the greatest certainty, that it had an architect or builder; because this is precisely that species of effect, which we have experienced to proceed from that species of cause. But surely you will not affirm, that the universe bears such a resemblance to a house, that we can with the same certainty infer a similar cause, or that the analogy is here entire and perfect. The dissimilitude is so striking, that the utmost you can here pretend to is a guess, a conjecture, a presumption concerning a similar cause; and how that pretension will be received in the world, I leave you to consider.[13]

Uniqueness precludes analogy

In a later passage in the *Dialogues* Hume is still more precise about the fallacy of comparing the universe with human artifacts. While we are able to judge within our experience what causes houses to be built or watches to be made, we cannot do this with universes and thus cannot determine whether similar causes operate in universe-making as in watchmaking. An effective analogy, in other words, requires the examination of many instances of the objects being compared. The trouble with this is that the universe is neither an artifact like a watch nor an organ like an eye nor an organism like a monkey: *it is unique*. Therefore, since we have no experience of the origins of universes in general, we can say nothing about the origin of this universe.

When two species of objects have always been observed to be conjoined together, I can infer, by custom, the existence of one, wherever I see the existence of the other. And this I call an argument from experience. But how this argument can have place, where the objects, as in the present case, are single, individual, without parallel, or specific resemblance, may be difficult to explain. And will any man tell me with a serious countenance, that an orderly universe must arise from some thought and art, like the human; because we have experience of it? To ascertain this reasoning, it were requisite, that we had experience of the origin of worlds; and it is not sufficient surely, that we have seen ships and cities arise from human art and contrivance.[14]

In his *Enquiry* Hume expands upon this point in one of his most elegant passages. First, and true to his method, he presents a formidable case for design:

If you saw, for instance, a half-finished building surrounded with heaps of brick and stone and mortar and all the instruments of masonry; could you not *infer* from the effect, that it was the work of design and contrivance? And could you not return again, from this inferred cause, to

infer new additions to the effect, and conclude, that the building would soon be finished, and receive all further improvements which art could bestow upon it? If you saw upon the sea-shore the print of one human foot, you would conclude, that a man had passed that way, and that he had also left the traces of the other foot, though effaced by the rolling of the sands or inundation of the waters. Why then do you refuse to admit the same method of reasoning with regard to the order of nature?[15]

The question seems a fair one. Why not accept a parity of reasoning in this case, and admit that, if the inductive inference is legitimate in one case, it is legitimate in the other? As Hume puts it, 'Are not these methods of reasoning exactly similar? And under what pretence can you embrace the one, while you reject the other?'[16] But after having posed the question, Hume replies by pointing out that the inference employed in the design argument – what he here calls 'the religious hypothesis' – must fail, given that both the supposed cause (God) and its alleged effect (the universe) are unique by definition.

The Deity is known to us only by his productions, and is a single being in the universe, not comprehended under any species or genus, from whose experienced attributes or qualities, we can, by analogy, infer any attribute or quality in him…. The great source of our mistake in this subject…is, that we tacitly consider ourselves, as in the place of the Supreme Being….But, besides that the ordinary course of nature may convince us, that almost everything is regulated by principles and maxims very different from ours…it must evidently appear contrary to all rules of analogy to reason from the intentions and projects of men, to those of a Being so different and so much superior.…But this method of reasoning can never have place with regard to a Being, so remote and incomprehensible, who bears much less analogy to any other being in the universe than the sun to a waxen taper, and who discovers himself only by some faint traces or outlines, beyond which we have no authority to ascribe to him any attribute or perfection.… In a word, I much doubt whether it is possible for a cause to be known only by its effect (as you have all along supposed) or to be of so singular and particular a nature as to have no parallel and no similarity with any other cause or object, that has ever fallen under our observation.[17]

Some replies to Hume

Opinion is divided about this criticism. Antony Flew calls it Hume's 'killing blow',[18] arguing that 'we do not have, and we necessarily could not have, experience of other Universes to tell us that Universes, or Universes with these particular features, are always, or most likely, the work of Gods, or of Gods of

this or that particular sort'.[19] Here Flew also introduces a point that I have already made when discussing the cosmological argument, specifically in relation to the principle of sufficient reason.[20] Even if we accept the principle (which Flew regards as demonstrably false) that there has to be a sufficient reason why anything and everything is as it is, the explanation given must at least be offered in terms of *something other* than the thing being explained; or, as Flew puts it, 'every system of explanation must include at least some fundamentals which are not themselves explained'.[21] But what can this other thing be when we ask why-questions of the universe, when the universe constitutes the totality of existing things, thereby excluding any other element outside itself in terms of which it may be explained? Asking for a cause of the whole universe, as we have observed before, has a different logical status from asking for a cause of an individual object or event within that universe.

Others, however, are less taken with this criticism.[22] Hume's objection appears to be that it is impossible to form hypotheses about singular or unique objects, in which case, of course, any argument which employs the notion of a universe on one side of an analogy will be ruled out of court from the beginning. Richard Swinburne, to whom we shall return presently, argues that this assumption is false. After all, we know of only one human race, but that does not prevent anthropologists from speculating about the origins of man.[23] The important point to note here is that, while the universe may be unique, it is not for that reason *indescribable*; and having been described as a collection of parts – e.g., sun, stars and planets, down to the simplest microscopic organisms – it may be treated as the legitimate object of scientific study.

I am not sure, however, that this reply meets the full force of Hume's objection. Such talk of the universe contains the prior assumption that the universe has a predominant characteristic: i.e., that it *is* a whole, namely, a unified system of organized and mutually supportive functional adaptations, coordinated, moreover, if one is to take the comparison with artifacts seriously, for the realization of certain goals. But what, asks Hume, are the warrants for this assumption? For while it is clearly possible to establish that regularities do exist in the association of different parts within our world – it is possible, for example, to observe empirically whether certain conditions within it are regularly connected (for example, friction and heat) – it is quite impossible to stand, as it were, outside the universe and so observe whether such associations pertain to the universe generally. This explains why it is quite impossible to determine whether the extent of adaptiveness in the universe *as a whole* is

sufficient to warrant the analogy between it and an artifact, and thus to warrant the theistic conclusion.

The point to be stressed here is that Hume is not questioning the propriety of ever speaking about the origin of the universe – as we shall see in a moment, he is prepared to entertain often bizarre accounts of its creation – but he is doubting that there is, or could be, evidence to justify any analogical reference which includes the universe *as a whole*. What he is trying to establish, in other words, is not that the analogy between a universe and a watch is demonstrably false but that whether this analogy is true or false is not something which, in the particular and unique case of the universe, we shall ever be in a position to demonstrate. This is because we have nothing else comparable to the universe, and because we cannot force upon it general characteristics which may, for all we know, pertain only to a small part of it.

Thought, design, intelligence, such as we discover in men and other animals, is no more than one of the springs and principles of the universe, as well as heat or cold, attraction or repulsion, and a hundred others, which fall under daily observation. It is an active cause, by which some particular parts of nature, we find, produce alterations on other parts. But can a conclusion, with any propriety, be transferred from parts to the whole? Does not the great disproportion bar all comparison and inference? From observing the growth of a hair, can we learn anything concerning the generation of a man? Would the manner of a leaf 's blowing, even though perfectly known, afford us any instruction concerning the vegetation of a tree?[24]

It is not difficult to see, I think, that behind this first criticism lies Hume's general dissatisfaction with all cosmological arguments. Within our experience certain conditions are said to prevail, whether it be the relation of cause to effect or the phenomenon of functional adaptation. But this conclusion will not take us as far as theists want to go: they want also to say that these conditions pertain to the *world as a whole*, which thereby justifies further questions about the existence of a causal agent or designer to account for that world. But this point cannot be reached on the a posteriori certainty that these conditions do in fact apply – there being no possibility of this claim ever being justified – but only on the a priori certainty that these conditions *must* apply. We have thus returned to the undemonstrable assumption that *nature is uniform*: 'that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues always the same'.[25] There is, however, no logical or empirical reason why this should be so, and therefore no logical or empirical reason why we should elevate one characteristic within the universe to the role of primary characteristic of the universe as a whole. But we can at least understand why this is done. It follows from a 'determination

Uniformity of nature: an undemonstrable assumption

of the mind' on our part to think that what applies to a *part* must also apply to the *whole*, and from our preference for a particular characteristic which lends support to the view that the universe is ultimately intelligible. The design argument therefore assumes what it is seeking to prove: not that *order* exists – this is not in dispute – but that order exists generally; that, in other words, nature is uniform. But this cannot be demonstrated. That the universe is alleged to have this *supposed* property in common with artifacts does not allow us to make the inductive inference that it has another property, namely, that it is the product of design.

EXERCISE 3.5

How would Hume argue against the following propositions? Do you agree with him?

The universe is like any other artifact: it is the product of design.

The universe is like my son: unique and brought into being by a creator.

The order I see in the universe points to an orderer of the universe.

THE DIVERSITY OF CAUSAL EXPLANATION

Even if the first part of Hume's argument is rejected – even if we accept for the moment that the analogy between world and artifact justifies the conclusion that the world has a designer – the next phase of his argument, which many regard as the more devastating, reduces this possibility still further. Given that there is order in the world, there may be other explanations besides the theistic one to account for it, explanations at least as probable as the design–designer hypothesis. To express the matter formally: the analogy between objects O and B may be denied if the effects they have in common can be accounted for by other means. Thus, if O resembles B in having various properties (Ps), this does not require that O further resembles B in having the same cause to account for those properties. To suppose otherwise, we remember, is to commit the fallacy of the 'affirmation of the consequent', since there may be a great variety of causes producing the same effects.

Hume's alternative explanations of design

That various causes can produce the same effects is a point that Hume now exploits to the full. He proceeds, therefore, to offer two alternative explanations for the appearance of design. In the first he considers the possibility that order and design, while certainly resembling the effects of human activity, may yet more closely resemble the (equally perceptible) effects achieved by the biological activities of animals and plants. Here the principles of instinct, generation and vegetation operate to produce an ordered world without any external and intelligent agency. Why not, then, conceive of this planetary system as a 'great Vegetable' producing 'within itself certain seeds, which, being scattered into the surrounding chaos, vegetate into new worlds'? Why not see the world as an 'Animal', with a comet as its egg? Why not join with the Brahmins and assert that 'the world arose from an infinite spider, who spun this whole complicated

mass from his bowels'?[26] Admittedly these alternatives are offered very much tongue in cheek, and Hume's Philo admits as much; but however fanciful, they cannot be dismissed, as Demea would have us do, simply on the grounds that there is no evidence to support them. That misses the point at issue. We are dealing here with rival theories concerning the causes of order in nature. On the one hand, we have the theory of a designing intelligence, drawn from our experience of human effects; on the other, we have the theory of natural self-regulation and growth, drawn from our experience of biological effects. But if one theory is rejected through lack of evidence, there is no reason why we cannot reject the other on the same grounds:

I have still asserted [says Philo], that we have no data to establish any system of cosmogony. Our experience, so imperfect in itself, and so limited both in extent and duration, can afford us no probable conjecture concerning the whole of things. But if we must needs fix on some hypothesis; by what rule, pray, ought we to determine our choice? Is there any other rule than the greater similarity of the objects compared? And does not a plant or an animal, which springs from vegetation or generation, bear a stronger resemblance to the world, than does any artificial machine, which arises from reason and design?…To say that all this order in animals and vegetables proceeds ultimately from design is begging the question; nor can that great point be ascertained otherwise than by proving a priori, both that order is, from its nature, inseparably attached to thought, and that it can never, of itself, or from original unknown principles, belong to matter.[27]

The strength of this criticism is not lost on Cleanthes, who, while claiming that Philo's objections are contrary to sense and reason, retreats from the field, admitting that as yet he can find no satisfactory answer to them.

The Epicurean hypothesis

Hume admits that his second explanation for the appearance, if not the fact, of design is similarly fanciful; but its absurdity is again beside the point. What has to be established is whether it is any *less* absurd than the theistic alternative. So, simply going on the evidence before us, it is possible to offer a thoroughly materialistic and mechanistic interpretation of the world about us. For all we know, Philo argues, the order we observe could result from the chance collisions of particles of matter, without any guiding intelligence. This is the so-called 'Epicurean hypothesis' suggested by the Greek philosopher Epicurus of Samos (341–270 BC). Epicurus' account of physical nature, which largely follows the views of his predecessors Leucippus and Democritus, postulates a universe infinite in extent, without beginning or end, but evolving out of a primordial and immeasurable plurality of uncreated and indivisible particles (*atomoi*). The world was not therefore created by gods or designed by them for some ultimate purpose – the gods themselves are seen as the products of the material universe

and completely indifferent to its functioning – and what changes do occur are the result of the accidental collisions or 'swerves' of these atomic particles.

Epicurus (341–270 BC)

For instance; what if I should revive the old Epicurean hypothesis? This is commonly, and I believe, justly, esteemed the most absurd system, that has yet been proposed; yet, I know not, whether, with a few alterations, it might not be brought to bear a faint appearance of probability. …Suppose…that matter were thrown into any position, by a blind, unguided force; it is evident that this first position must in all probability be the most confused and most disorderly imaginable, without any resemblance to those works of human contrivance, which, along with a symmetry of parts, discover an adjustment of means to ends and a tendency to self-preservation….

Thus the universe goes on for many ages in a continued succession of chaos and disorder. But is it not possible that it may settle at last, so as not to lose its motion and active force (for that we have supposed inherent in it) yet so as to preserve an uniformity of appearance, amidst the continual motion and fluctuation of its parts? This we find to be the case with the universe at present. Every individual is perpetually changing, and every part of every individual, and yet the whole remains, in appearance, the same. May we not hope for such a position, or rather be assured of it, from the eternal revolutions of unguided matter, and may not this account for all the appearing wisdom and contrivance, which is in the universe? Let us contemplate the subject a little, and we shall find, that this adjustment, attained by matter, of a seeming stability in the forms, with a real and perpetual revolution or motion of parts, affords a plausible, if not a true solution of the difficulty.[28]

Once again the problem presented here is to choose between two rival hypotheses. On the one hand, we have *authentic design* (i.e., the world is the

product of a designer), and on the other, we have *apparent design* (i.e., the world has the appearance of design but is in fact the product of chance). The evidence for each alternative remains the same – the fact of order – but whether this evidence is sufficient to support one hypothesis over the other is hard to see. Certainly we cannot be surprised that, for some people, such degrees of regularity – assuming for the moment that the phenomenon of order *is* a feature of the universe *as a whole* – should provoke feelings of awe and stupefaction and lead them to discount the element of chance in favour of some guiding force. But there are rival hypotheses, Hume contends, about what this guiding force might be: it might be something more akin to an animal instinct or vegetative process, or again some mechanical interaction between particles of matter, or a combination of such forces; but whatever it is, we cannot assume a priori that it is a designing mind because that is precisely what the design argument is seeking to prove. To give an example: If I throw sticks in the air, it is possible that they will fall into a pattern, say, the form of an octagon. Someone who did not see me throw them might conclude that the pattern was deliberate, that I arranged the sticks to produce that effect. But how is that person to know, merely on the evidence before him, that the octagon was the result of a constructing intelligence and not the product of blind chance? Again the fallacy of the 'affirmation of the consequent' applies: there may be a great number of causes (chance being one) which lead to the same effect. Indeed, Hume goes further. We draw analogies from our experiences within our world, and here we find that the creation of intelligent beings follows from some act of animal reproduction and not, so far as we can tell, from the operation of a particular intelligence. To argue by analogy is therefore to draw the more likely conclusion that intelligence is not the originating cause of order and apparent design, and that we should look more to the processes of generation.

Authentic and apparent design

According to Hume, then, there appears no good reason to adopt the theistic solution in preference to any other explanation of the causes of order and design. We may initially agree with Cleanthes that the universe, having many properties in common with machines, has the additional property of being designed. But, as we have seen, in several other respects the universe resembles other things that do not possess this property, and this inevitably reduces the likelihood that it actually has it. Certainly it reduces it to the point where the religious preference for a designing intelligence, over against all other causal explanations, is difficult to sustain.

EXERCISE 3.6

Of the following which do you consider the most likely causal explanation of the universe?

Explain your answer.

The universe was created by:

a giant insect.	a committee of gods.	the universe itself.
an evil genius.	one God.	

THE PRINCIPLE OF PROPORTIONALITY

Like effects do not prove like causes

Let us now set aside Hume's criticism of the claim that the cause of the universe is an intelligent being. What of the theistic conclusion that this intelligent being is God? To begin, Hume returns to the inductive principle of proportionality, namely, that *like effects prove like causes*. In the design argument, we remember, this principle allows that the greater the resemblance between the effects – in this case, the universe and human artifacts – the closer the similarity in causes, namely, that both are the product of a designing intelligence. But even if we accept this argument, it still provides insufficient grounds for any additional and religious conclusions about God's nature. Hume's objection, first set out in his *Enquiry*, is simple and effective:

When we infer any particular cause from an effect, we must proportion the one to the other, and can never be allowed to ascribe to the cause any qualities, but what are exactly sufficient to produce the effect. A body of ten ounces raised in any scale may serve as a proof, that the counter-balancing weight exceeds ten ounces; but can never afford a reason that it exceeds a hundred…. The same rule holds, whether the cause assigned be brute unconscious matter, or a rational intelligent being. If the cause be known only by the effect, we never ought to ascribe to it any qualities, beyond what are precisely requisite to produce the effect: Nor can we, by any rules of just reasoning, return back from the cause, and infer other effects from it, beyond those by which it is known to us.[29]

An example will clarify the point Hume is making. If I saw a collection of paintings by Picasso – say, a group associated with his so-called Blue Period of 1901–1904 – I might conclude that the artist was possessed of certain skills and tastes. Here the cause is proportioned to the effect. But what I could not know, merely from the canvasses before me, is that Picasso was also a master of other forms, for example, ceramics, sculpture, *papiers collés*. To credit him with these further skills would be to infer additional qualities from these paintings which, as effects, they are not sufficient to produce. For the design argument this has two important implications. The first is that we cannot apply to God (as the causal agent) any qualities which are not proportionate to his effects – and this may lead to the *exclusion* of certain attributes that the believer wishes to *include*; and the second is, conversely, that what qualities are applicable must be proportionate to those effects – and this may lead to the *inclusion* of certain attributes that the believer wishes to *exclude*. Either way the results are embarrassing.

Attributes to be excluded

What, then, is to be *excluded* ? The first to go is the claim to *infinity* in any of the attributes of the Deity. From the finite objects we perceive as effects we are asked to infer the existence of an infinite cause; but the most we can legitimately conclude from the cause–effect structure of the design analogy is

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a *finite* cause. Anything else would contravene the principle of proportionality and involve the unjustified and indeed illogical application of empirical concepts beyond the sensible world from which they are drawn and in which they operate. The second attribute to be excluded is that of *perfection*. Again, if the cause be proportionate to the effect, then the fairly obvious and manifold instances of imperfection within the world would lead us more naturally to suppose that their creator is imperfect also, not perfect.[30] And here Hume repeats a by now familiar point. If our universe cannot be compared to any other universe, how do we know that it is perfect and its creator not a bungler?

But were this world ever so perfect a production, it must still remain uncertain, whether all the excellencies of the work can justly be ascribed to the workman. If we survey a ship, what an exalted idea must we form of the ingenuity of the carpenter, who framed so complicated useful and beautiful a machine? And what surprise must we entertain, when we find him a stupid mechanic, who imitated others, and copied an art, which through a long succession of ages, after multiplied trials, mistakes, corrections, deliberations, and controversies, had been gradually improving? Many worlds might have been botched and bungled, throughout an eternity, ere this system was struck out: Much labour lost: Many fruitless trials made: And a slow, but continued improvement carried on during infinite ages in the art of world-making. In such subjects, who can determine, where the truth; nay, who can conjecture where the probability, lies; amidst a great number of hypotheses, which may be proposed, and a still greater number, which may be imagined?[31]

Attributes to be included

If the principle of proportionality is to be upheld, therefore, we should by rights have to assert the existence of a finite and imperfect being as God. But other, equally damaging, attributes must be *included* if we are to pursue the design analogy to the end. If the analogy depends on a resemblance between human and natural effects, then it is not merely the effects which must be considered alike but their causes as well. Accordingly, the greater the similarity in effect, the greater the probability that a more *anthropomorphic* or man-like picture of God is the correct one. Hume here considers three alternatives:

1. The first possibility is that there is not one God but many. Again, since there are many effects, there might well be many causes. Certainly experience inclines us to the view that the larger the creation, the more people are involved. Why therefore contradict this principle when discussing the creation of a world?

And what shadow of an argument, continued Philo, can you produce, from your hypothesis, to prove the unity of the Deity? A great number of men join in building a house or ship, in rearing a city, in framing a commonwealth: Why may not several Deities combine in contriving and

framing a world? This is only so much greater similarity to human affairs.[32]

2. The second possibility is that God no longer exists. Just as an architect of a building, being human, may not outlive the building he designed, so the designer (or designers) of the universe may not outlive their creation, even though evidence of his (or their) creativity is still apparent to us:

But farther, Cleanthes; men are mortal, and renew their species by generation; and this is common to all living creatures…. Why must this circumstance, so universal, so essential, be excluded from those numerous and limited Deities?[33]

3. The third possibility is to extend the resemblances between causes to include physical characteristics:

And why not become a perfect anthropomorphite? Why not assert the Deity or Deities to be corporeal, and to have eyes, a nose, mouth, ears etc. Epicurus maintained, that no man had ever seen reason but in a human figure; therefore the gods must have a human figure. And this argument, which is deservedly so much ridiculed by Cicero, becomes, according to you, solid and philosophical.[34]

EXERCISE 3.7

Present arguments for and against the possibility that God is…

now dead	malevolent
delinquent	one of many gods
incompetent	of human form

This concludes the final phase of Hume's discussion. His contention is that, even if one agrees with the basic premisses of the design argument – that there is a resemblance between nature and human artifacts, and that like effects have like causes – one could not thereby attain the sort of knowledge about the nature and existence of God that its proponents desire. Quite the contrary, in fact, since what one comes up with when pursuing the analogy through to its limits is qualities and characteristics totally at variance with those applied to the God of the main Judaeo-Christian tradition. Indeed, the better the analogy, the more one must conclude that the Author of Nature is more like the watchmaker we are familiar with: finite, imperfect, subject to error, and so on.

Thus, even if we accept that the universe is caused by some kind of intelligence,
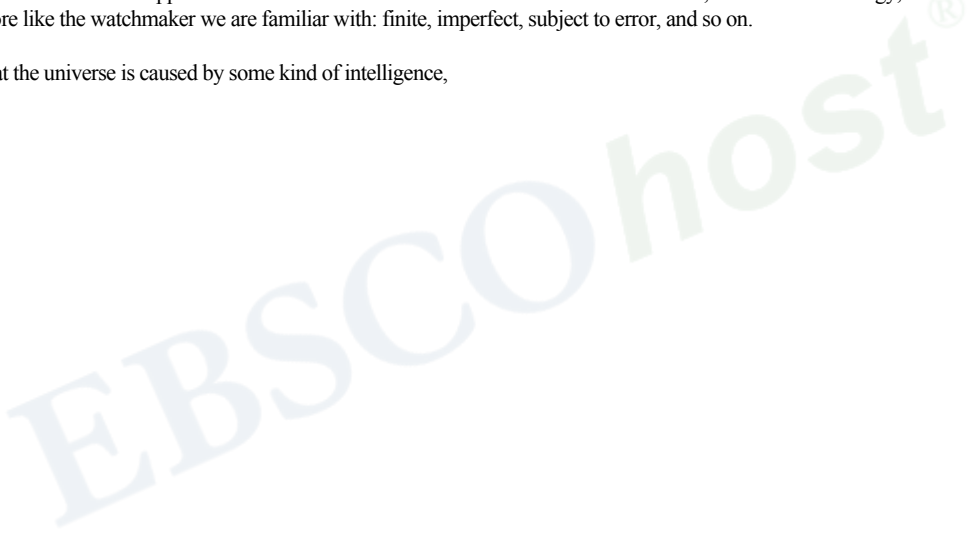
this does not of itself discount the possibility that this intelligence is limited, and that universes, like watches, can accordingly be made by fools and bunglers.

DARWIN'S CRITIQUE OF THE DESIGN ARGUMENT

Charles Darwin's criticisms shadow Hume's objections in many respects. While it is difficult to sustain the view that his *Origin of Species* (1859) consciously carries forward the Humean attack – its first edition carries a design argument of its own and in structure, oddly enough, owed much to Paley – we do know from various entries in Darwin's work that at the precise moment when he hit upon his 'theory by which to work' he was reading Hume with care and profit.[35] Nor should we forget that the *Dialogues* contain distinctly evolutionary overtones.[36]

Connection between Darwin and Hume

The decisive point of contact between Hume and Darwin lies, as we shall see, in the extent to which Darwin's theory supports Hume's second criticism of the design argument – that dealing with the *diversity of causal explanation*. Here it is worth recalling that, to many religious minds of the nineteenth century, the scandal of Darwinism was not merely to be told that human beings derive from the same stock as animals, but to be informed additionally that the prime mover in the cosmic process was not purpose but chance; in other words, that at least one of Hume's tentative explanations for the *appearance* of design – his so-called Epicurean hypothesis – far from being absurd, in fact had scientific support. How, for example, could one continue to hold to the idea of purposive and intelligent design when, following Darwin's theory of natural selection, it could be shown that living organisms developed as the products not of divine initiative but of a competitive process, a struggle for existence, in which the survival of any particular species depended on the degree to which it could adapt to the particular environment in which it found itself? This conclusion fleshed out Hume's Epicurean hypothesis. It is not *authentic* design that we see in the world around us but *apparent* design, in which chance and adjustment to circumstance determine the order that exists.

The voyage of HMS *Beagle*

So important is Darwin's theory that it may be useful here to give a brief account of its background. In 1831, aged 22, Darwin was offered the post of accompanying naturalist on board HMS *Beagle*, which was to survey the coasts of Patagonia, Tierra del Fuego, Chile and Peru. The voyage lasted five years and was, as Darwin later confessed, the most important event of his life, providing him with a wealth of zoological and botanical specimens. In September 1835
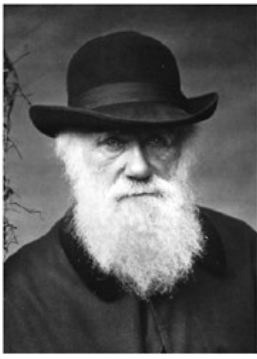
Charles Darwin (1809–1882)

From a wealthy background, Darwin was educated at Shrewsbury School, and was sent to Edinburgh University to study his father's profession of medicine, which he loathed, and then in 1827 to Cambridge to study divinity, with equal lack of success. Here, however, he met a group of scientists led by the clergyman-botanist John Henslow, who in 1831 recommended Darwin to the Admiralty as the unpaid naturalist on HMS *Beagle*. During his five-year trip Darwin sent back innumerable geologic and biological specimens, which rapidly established his reputation at home. On his return he was promptly elected a Fellow of the Geological Society, and, in 1839, aged 30, a Fellow of the Royal Society. Although Darwin's account of his voyage was published in the same year, in his private notebooks he had already begun work on 'the species problem', two sketches of his evolutionary theory appearing in 1842 and 1844. Although he was always reluctant to publish his thesis in full, the matter was decided for him when, on 18 June 1858, Alfred Wallace, a naturalist working in the Malay Archipelago, sent him a paper largely duplicating Darwin's own conclusions. To avoid embarrassment, a joint paper by Darwin and Wallace was read to the Linnean Society a few days later, on 1 July. *On the Origin of Species by Means of Natural Selection* was published on 24 November 1859 and rapidly sold out, a sixth edition appearing in 1872. Although quickly accepted by most scientists, the theory of natural selection met with fierce opposition from orthodox Christians, the most acrimonious encounter being in Oxford in 1869 between Samuel Wilberforce, the Bishop of Oxford, and T. H. Huxley. Three further books complete Darwin's theory: *The Variation of Animals and Plants under Domestication* (1868), *The Descent of Man* (1871) and *The Expression of the Emotions in Man and Animals* (1872). A semi-invalid for most of his life, Darwin died at Down House on 19 April 1882, and through Parliamentary petition was buried in Westminster Abbey.
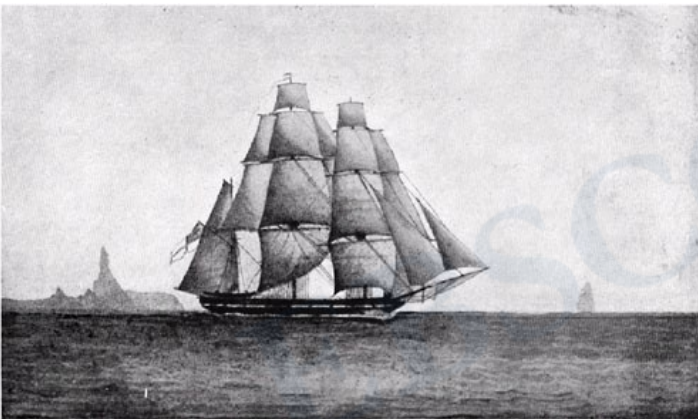
HMS *Beagle*

the *Beagle* landed on one of the islands of the Galapagos Archipelago, and it was there that Darwin made a crucial observation. He realized that animals from various islands, which he had previously thought to be of the same species, were in fact of different species – that finches, for example, differed both in structure and behaviour from one island to the next: that some ate insects, others seeds, and that the form of their bills reflected this difference. Two explanations were possible: one explained these differences either on the basis of some independent and immutable creation or on the basis that these species, affected by the different conditions of the different islands, underwent certain transformations. 'It was evident that such facts as these as well as many others could be explained on the supposition that species gradually become modified; and the subject haunted me.'[37]
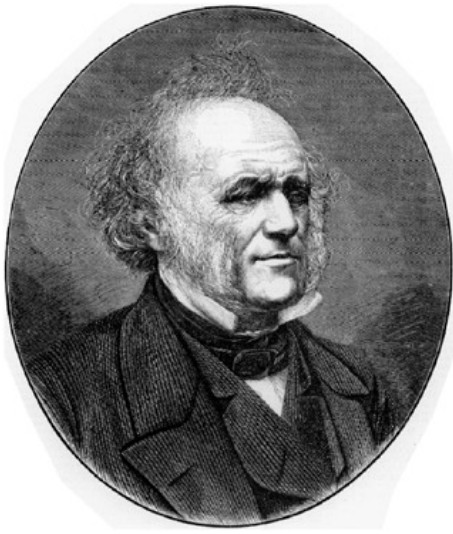
Sir Charles Lyell (1769–1849)

Influences on Darwin: Lyell and Malthus

But what was the mechanism of such modification? Darwin's next step in his search was prompted by two books: Sir Charles Lyell's *Principles of Geology* (1830–1832), the first volume of which Darwin had taken with him on the *Beagle*; and Thomas Malthus' *Essay on Population* (1798), which he read nearly two years after his return. The principal significance of Lyell's work was that it converted Darwin to the theory known as 'uniformitarianism'. This was the view, unfashionable at the time, that the earth had developed over enormous periods of time and as a result of a whole series of disturbances – eruptions, earthquakes, erosion and deposition – which were 'uniform' with what could be observed in our own experience. This thesis contrasted sharply with the more prevalent view – known as 'catastrophism' – which claimed that the earth had changed as a result of violent cataclysms disrupting the regular order of nature, one of these being commemorated in the biblical story of the Flood. Lyell's thesis, which Darwin confirmed for himself when he saw the volcanoes of St Jago and which he developed in his own theory of coral reefs, allowed Darwin later to postulate a more gradual sequence of events in the evolution of the species, and to theorize about what the mechanism of this development might be by analysis of observable phenomena.