

## Two Arguments for the Existence of God: An Atheistic Critique

### 1. INTRODUCTION

For the positive atheist's case to succeed, a range of classic arguments for God's existence must be refuted.<sup>1</sup> Although sometimes called 'proofs', only one of them can lay legitimate claim to that name. This is the so-called ontological argument first presented by St Anselm (c.1033-1109). Here Anselm argues that, from the *definition* of God – that 'God is something than which nothing greater can be conceived' – one may conclude, as a matter of logic, that God exists, his existence being a necessary



Anselm

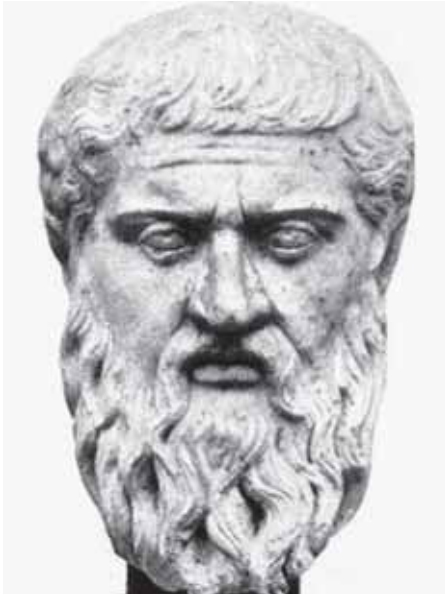
requirement of his unsurpassable greatness. The *a priori* character of this argument – by which I mean that it involves no appeal to experience and so no empirical evidence to determine its truth or falsity – makes it unique in the history of theology. But although undoubtedly of great philosophical interest, and despite having its modern advocates, this argument is for the most part rejected by philosophers on lines first drawn by Immanuel Kant in his *Critique of Pure Reason* of 1791. We may allow that the concept of God as the greatest conceivable and most perfect being is correct; but this does not imply that the concept is instantiated anywhere in existence. Nothing, in other words, can be defined into existence. From the definition of X, it does not follow that X exists.

1. These are analysed in much greater detail in my *The Question of God*, London & New York, Routledge, 2001.

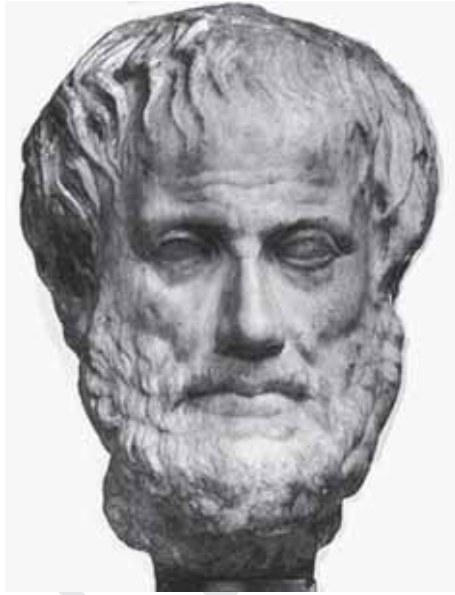
We can therefore set the ontological argument to one side. However, other classic arguments remain, and it is these, often generally classified as *cosmological* in character (from the Greek *cosmos*, meaning ‘universe’ or ‘world’), which are among the primary targets of the atheistic literature. From the evidence drawn from certain empirical observations or experiences of the world about us, it is concluded that God exists, this being the only rational explanation sufficient to explain what has occurred. These observations and experiences can range from the familiar – that, for example, things exist, move, are caused, and exhibit some degree of order – to the unfamiliar: that certain individuals have witnessed or themselves experienced events so extraordinary that they call them ‘miraculous’. Such arguments have also been called ‘proofs’; but, strictly speaking, proofs they are not. For these arguments are not *a priori* in form but *a posteriori* in character, and as such always allow for the possibility, however remote, of falsifying evidence becoming available. These, then, are not proofs in the Anselmic sense by claiming that the denial of God’s existence is self-contradictory, but proofs only in the sense that they assert that such a denial is unreasonable, given the weight of evidence against it. As with all *a posteriori* arguments, what is being claimed here is not, then, that these theistic explanations are the only *logically possible* explanations but rather that they are the only *plausible* explanations of the available evidence, and that these can be presented beyond rational doubt. Two of these arguments are of particular merit. These are the famous arguments from Cause and Design.

## 2. THE ARGUMENTS FROM CAUSE AND DESIGN

It will come as no surprise that many of the fiercest critics of these arguments refer back to those authors of classical Greece who offered an interpretation of the universe, and of man’s place within it, devoid of any theistic concepts of order and design. For in a scheme that claimed that the cosmos was of infinite extent and duration, no place could be found for an initial beginning inaugurated and supervised by an interventionist deity; and in a programme of creation marked by its atomistic randomness, any notion of a designing intelligence could be excluded. For the most part, however, these ideas – which, we recall, first took shape in the 5<sup>th</sup> century B.C. – were exclusive to the philosophical community; but even here, as we noted, public confessions of explicit atheism were virtually unknown and played no part in popular religion. For the general public, while the domestic wranglings of the gods of Olympus may have appeared increasingly ridiculous, the faith in a supra-natural world, peopled by superior beings, remained intact, and the formalities of the cult continued to celebrate the belief that the formation of the world and the visible regularities of nature within it were explicable in terms of the divine decrees of the gods, a frequent analogy being drawn between divine commands and the edicts of a lawgiver.



*Plato*



*Aristotle*

Despite, therefore, the presence of mechanistic explanations, the idea of divine causation and design was never completely eliminated from Greek speculation. It is, however, with Plato (427-347 B.C.) that this supernaturalist view finds its first formal justification, with a detailed philosophical rejection of the claim that the sequence of natural events occurs mechanically and is indifferent to purpose. In Plato's dialogue *Laws*, we meet the first exposition of the famous 'First Cause' argument, developed to offset the possibility of an infinite regress of causes; and then, in the dialogue *Timaeus*, a design argument repudiating any notion of a self-explanatory and self-generating universe, and in which the universe is symbolically presented as a 'living creature', ordered and intelligent, and fashioned by a benevolent craftsman or Demiurge. However, a significantly different picture emerges with Plato's most celebrated pupil, Aristotle (384-322 BC). For while Aristotle shares with his teacher a keen sense of the philosophical necessity of a supreme causal principle, which he names the Unmoved Mover, he rejects altogether the Platonic teleological addition. As he explains in Book 12 of the *Metaphysics*, God is the eternal unchanging source of all change, movement and process, the ultimate mover that guides intermediate movers (i.e., humans); but while thus indispensable to the world's existence, this supreme mover of the universe is not a creator-god: first, because the universe is itself eternal, an ordered world of natural processes without beginning or end, in everlasting and continuous motion; and second, because a perfect being has no needs and can do nothing to improve its state. Aristotle's Unmoved Mover thus stands aloof from the universe as an immutable perfection, the apex of all being and knowledge, but as a deity unaware of the world and so caring nothing for it, without any desire to create or act within something less perfect than itself. The

unbroken activity of God is thus directed not outwards in intervening providential acts of design but solely inwards, in an introspective activity of contemplation. Here the Unmoved Mover focuses upon the only object adequate to exercise his thoughts, namely, Himself.

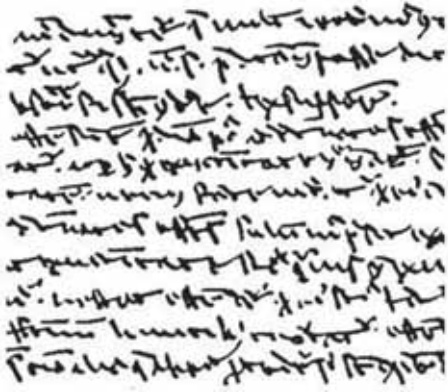
While after Aristotle there were sporadic revivals of naturalistic interpretations of creation – Lucretius and Cicero, we remember, were both advocates of this view – none of these was sufficiently powerful to challenge the prevailing theistic idea, now reinforced by the intellectual ascendancy of the Platonic and Aristotelian philosophies. However, with the advent of Christianity as the dominant European belief-system, both the old gods and any pantheistic or atheistic alternatives were totally eclipsed, and indeed vigorously repressed. Christian monotheism proclaimed an omnipotent, omniscient and personal deity, much given to divine interventions in the affairs of mortals as the merciful and providential father of his children. And an essential part of this outlook, adopted from the Jewish tradition, was enshrined in the biblical myth of creation. The world was brought into being ‘from nothing’ (*ex nihilo*) within a specified time-frame by an all-powerful God, who engineered its completion in scrupulous detail, giving to all creatures their proper place and function. This process culminates in the creation of man, made in the image of God (*imago dei*) – this likeness to God giving to human beings a central role in the cosmic drama thereafter to be played out according to the divine plan.

In its bare essentials, it is this scheme of divine causation and design which now dominates the intellectual landscape until the seventeenth century. Christian doctrine confirmed that the universe as a whole had been planned on a grand scale, a divine design no less, and that it was part of God’s purpose that the creation he had caused to be should also tend towards some aim or end (*telos*). The root idea took hold that, given that the actions of human agents were observed to have some purpose, the universe could, by analogy, be viewed in the same way, its even greater complexity and orderliness pointing to a conscious agent infinitely greater than any human counterpart. Christian theology, however, had to wait until the thirteenth century – that is, until the work of St Thomas Aquinas (1225-1274) – for the full expression of these ideas, presented, we should add, at a level of philosophical sophistication fully the equal of that achieved by either Plato or Aristotle.

Aquinas’ arguments from cause and design appear as the second and fifth proofs of his famous ‘Five Ways’ (*quinque viae*) in his *Summa Theologiae*, begun in



Thomas Aquinas



*Handwriting of Thomas Aquinas*

1256 but unfinished at his death. For our purposes all we need say is that in each case Aquinas offers a theistic explanation of reality that is, he maintains, the only plausible explanation of why things are as they are. So, in the causal argument, the possibility of an infinite regression of causes and their effects, of the kind proposed in the atomic theories of Democritus, is rejected on the grounds that, while our immediate experience may explain why any particular effect has a particular cause, an infinite series

of regressive causes does not explain why anything should exist in the first place. All it offers is an explanation of cause and effect in terms of other causes and other effects, leaving us to suppose, improbably enough, that things owe their existence to nothing but themselves. A theistic explanation, on the other hand, offers no such implausibility. For just as in everyday experience we assume that any particular thing (the effect X) exists by virtue of another thing (the cause Y), and agree that this relation offers a justified explanation of why X exists, so the existence of God, as the First Cause, offers a justified explanation of why the world as a whole exists, why it came into existence, and why it continues to exist. That there is something and not nothing can be explained, in other words, through the permanent and present power of God, with the converse truth holding that without his continuing and sustaining existence nothing would now exist.

Let us turn now to the design argument. For its most celebrated account we must move from the 13<sup>th</sup> century to the 18<sup>th</sup> century, from Aquinas to William Paley (1743-1805), Archdeacon of Carlisle. In his *Natural Theology* of 1802 Paley introduces his famous comparison between the universe and a watch. Paley's argument is simplicity itself. A watch is compared to a stone; and while we can imagine a stone evolving through chance factors like the wind or rain, the complexity of the watch makes it absurd to assume that it too came into existence through a set of random occurrences. So we conclude that some intelligence has been at work in the watch's creation. Paley then extends his argument to the universe generally and to particular natural objects within it, noting particularly that miracle of creation, the vertebrate eye, the examination of which is virtually a cure for atheism. Such wonderful intricacy, Paley concludes, by surpassing anything that the human mind could create, implies the presence of a mind which, by the same token, far surpasses any human intelligence; and it is this supra-human intelligence which must have been employed not just in the eye's construction but in the creation of all that is.

It is worth unpacking this legendary argument a little further. In structure it is an *inductive argument from resemblances*. First a remarkable similarity is established between artifacts and organisms in that both adapt their means to ends: in the case

of the watch, the movement of its interior mechanisms operating to measure hours; and in the case of the natural world, to give only one example, the movement of the earth round the sun accounting for the passage from night to day. Next, both artifacts and organisms are treated as *effects*, the similarity already established between them sanctioning the conclusion that *their causes must also be similar*. This is the crucial move in the argument and brings us to its most important presupposition. 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. It is this assumption of a *uniformity of nature* that is 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 regularities, we formulate certain laws regarding future states of affairs: that arsenic is poisonous, that fire warms, that all men die, and so on.



William Paley

This assumption of inductive uniformity allows Paley to claim that *like effects have like causes*. If we have variously observed a connection between the effect B (e.g., machines) and the cause A (e.g., mechanics), then by analogy when we meet a new instance of B we may infer that it too 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 infer by analogy that here too a mechanic has been at work. Once again a uniformity of nature is presumed. The resemblance between things like machines and the universe entitles us to infer by analogy that the universe, like machines, also has a mechanic, even though the universe-making of this particular mechanic similarly *cannot be directly observed*.

It should be underlined again that, as an *a posteriori* cosmological proof, the design argument, like its causal counterpart, makes no claims to be an *a priori* logical truth. Thus however many machines we have observed to have mechanics, and however certain we may be that all future machines will have mechanics, we must allow that the particular machine now under examination did not have a mechanic. All we can say is that it most probably had one. But the fact that this argument is not a logical proof is not seen by its advocates as a weakness but as a strength, placing it fully in line with the problematic and contingent character of all empirical observations.

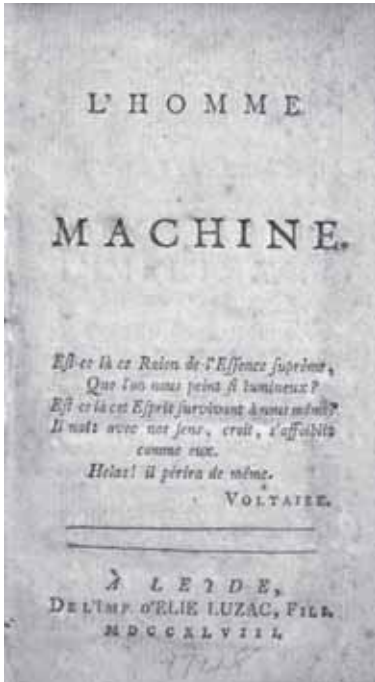
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Here, then, we are dealing with probabilities and not with logical certainties. Their claim is rather that the uniformity of nature observed within our world is such that it is as probable that the world has a designer as it is that any machine we 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.

### 3. THE ATHEISTIC CRITIQUE

The authors of these two theistic arguments are claiming that the causal laws and regularities in nature are more plausibly explained metaphysically, with God as both the sustaining power and architect of all that is; and that the alternative of an atheistic naturalism, according to which the world explains itself, has in effect no persuasive power because, after all, an explanation is no explanation if a further explanation is required to explain it. What the arguments from Cause and Design offer, in other words, are alternatives that appear ultimate, providing a terminus of explanation that is incapable of further analysis. The cosmological explanation designates God as the ultimate cause outside the universe – eternal, imperishable and independent – and thus immune to the finite constraints and perishabilities of that universe; and the teleological explanation sees God as the ultimate designer, purposive and creative, without whom the order and complexity of the universe would remain inexplicable.

As a first step in the presentation of the positive atheist's case, it is worth making the following general point. The theistic view is that any fact X will be rendered unintelligible when divorced from an account of how X came about; and that this is true whether the X here stands for the fact that the world exists at all, as in the causal argument, or for the fact that it exists in a certain way, as in the design argument. In either case, then, it is not enough to know only *that X is* but that additional reasons must be given for *why X is*. Nor can one deny that this requirement, enshrined in the well-worn philosophical principle of sufficient reason, is a commonplace of our experience; and that doctors, to give but one example, while they are willing to admit that there are diseases with unknown causes, are less likely to admit that there are diseases without causes. But the operational success of this principle, particularly evident in the empirical sciences, should not obscure the fact that the requirement to find an explanation is *not a logical requirement*; and that accordingly it is not a matter of *logical necessity* either that such explanations will be found or, more importantly, that such explanations exist to be found. We may conclude, in other words, that 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, and that this assumption is both intellectually and emotionally satisfying; but to conclude that the world is pointless is not in itself contradictory. When therefore, Aquinas and Paley present us with the dilemma 'Either there is a God or



*L'Homme Machine*



*Julien Offray de la Mettrie*

the universe is ultimately inexplicable’, it is not an error of logic to conclude that the universe is ultimately inexplicable and that accordingly there is no God.

This, I hope, makes clear that the atheistic alternative, while undoubtedly for many psychologically uncomfortable, is logically legitimate and that it is therefore permissible to suppose that the world may contain brute facts that cannot be explained or that the world itself is ultimately inexplicable and that it may just happen to be. But which of these alternatives is the more plausible? Is our world better explained by saying that it is of divine origin, created and designed by an omnipotent God, or should we eliminate God altogether and say that we live in a world which provides its own explanation, disclosed to us in the material and variable conditions of our immediate reality? Thus the theistic and atheistic explanations stand as contesting alternatives; but the question now to ask is: Which has the greater explanatory power?

As we saw in Chapter Two, by the seventeenth century the pendulum had already begun to swing away from the Aristotelian system of Creator and First Cause and towards a mechanico-materialistic interpretation of the natural world. This shift – supported, we recall, by what Joseph Glanville (1636-1680) was to call the rediscovery of ‘the more excellent Hypotheses of Democritus and Epicurus’<sup>2</sup> – did not at first manifest itself in any overt atheism: unsurprisingly, given the precedents of Bruno and Vanini; and when it did, the results could still be devastating for its author. Witness the case of the French philosopher, Julien Offray de la Mettrie

2. *Vanity of Dogmatizing* (1661), Quoted by Basil Wiley, *The Seventeenth Century Background*, New York, Columbia University Press, 1934, p. 7.





Voltaire

(1707-1751). While his two most notorious books – *Histoire naturelle de l'âme* (1745) and *L'Homme machine* (1747-1748) – fall short of explicit atheism, their distinctly anti-metaphysical tone, denunciation of the creator-God and uniform materialism led to persecution and exile, first in Holland and finally in Prussia under the protection of Frederick the Great. Some, indeed, were so fearful of reprisals that they were prepared to live a double life. Here the outstanding example is Jean Meslier (1664-1729), priest of Etrépy in the Ardennes, and perhaps the most remarkable apostate of his age. Outraged by the hypocritical life he had been condemned to lead, Meslier prepared three copies of a very lengthy *Mémoire* (better known as his *Testament*) to be published posthumously. In it he begs forgiveness of his parishioners for confirming them in the 'lies' and 'deceptions' of Christianity and proceeds to a methodical refutation of miracles, the divinity of Jesus, the authority of the New Testament, revelation, the dogmas of the Church, Christian morality, the immortality of the soul, and much else besides. Throughout, the *Testament* is buttressed by the principles of atheistic materialism. The absurdity of the 'unmoved Mover' and the fiction of separate mental and spiritual realms are

replaced by the eternity and universality of matter constantly in motion; and all known phenomena are reduced to particular configurations of particles or to what Meslier calls 'the continual fermentation of being'. The scandal caused by Meslier's 'counter-confession' was rapidly covered up by the ecclesiastical authorities; but his ideas were widely circulated in the eighteenth century through the text published in 1762 by Voltaire (1694-1778) under the title *Extrait des sentiments de Jean Meslier*. Despite being described by Voltaire as 'the most singular phenomenon ever seen among all the meteors fatal to the Christian religion', Meslier's extreme atheism was too much even for him. For though Voltaire's anti-Christian *Sermon des cinquante* ('Sermon of the Fifty', 1762) shares many of Meslier's targets –

### 3: TWO ARGUMENTS FOR THE EXISTENCE OF GOD: AN ATHEISTIC CRITIQUE



Death mask of Jean Meslier



The Testament

later to become even more pronounced in his *Dictionnaire philosophique* (1764) – Voltaire entirely repudiated Meslier’s materialist outlook and was indeed an enthusiastic defender of various versions of both the causal and design arguments. Thus in his edition of 1762 the atheistic framework of Meslier’s *Testament* is completely dismantled to accommodate Voltaire’s more sympathetic approach; and it was not until 1864 that a three-volumed unexpurgated text appeared in Amsterdam.<sup>3</sup>

Voltaire’s *Dictionnaire philosophique* also contains a refutation of the work that is invariably cited as the first avowedly atheistic book to appear in Christian Europe: *Le Système de la nature* (1770), written anonymously by Paul Henri, Baron D’Holbach (1723-1789).<sup>4</sup> Here the atheistic tendencies of the eighteenth century find their most blatant expression, its wide circulation ensuring that, for the first time, an undisguised attack upon religion as the source of all human evils was openly discussed without fear of official reprisal. Particularly noteworthy is

3. *La Testament de Jean Meslier*, ed. Rudolf Charles, Amsterdam, La Librairie Etrangère. For a rather exuberant account of Meslier’s importance, see the French philosopher Michel Onfray, ‘Jean Meslier and “The Gentle Inclination of Nature”’, *New Politics*, 10, No.4, Winter 2006. According to Onfray, Meslier is the first atheist in Western history, the first deconstructionist of Christianity, and the first philosopher to announce the death of God. See also Andrew R. Morehouse, *Voltaire and Jean Meslier*, New Haven, Yale University Press, 1936. A play has been written about Meslier by David Hall.

4. As the British equivalent, published in London twelve years later, David Berman names the *Answer to Dr Priestley’s letters to a philosophical unbeliever*, generally attributed to the Liverpool physician, Matthew Turner. At any rate, the author is quite explicit in his debt to *The System of Nature*, then thought to be by Mirabeau. See *A History of Atheism in Britain: From Hobbes to Russell*, London and New York, Routledge, 1990, p. 110.



*Paul Henri, Baron D'Holbach*

D' Holbach's violent anticlericalism and moral indictment of Catholicism as the mainstay of a corrupt state, his belief that the teachings of religion are contrary to scientific truth, and his desire to develop an educational system designed to foster epicurean self-interest. But what makes *The System* particularly important is its unrelenting materialism. Seeing in the universe nothing save matter in spontaneous movement, it ridicules any suggestion of a life after death and offers a naturalistic account of religion's origins strongly reminiscent of the criticisms of classical times: that it issues from fear and ignorance, fear of the unknown and ignorance of the laws of causation. D'Holbach is therefore particularly scathing of any attempt to see

divine initiative as the necessary prerequisite of the order observed in the natural world, and is accordingly totally dismissive of the watch-universe analogy, which was to be deployed by Paley thirty-two years later. The preference that D'Holbach has for atheistic naturalism over theism is, as he explains, in part due to the economy of explanation apparent in the one but not in the other. For why adopt, as an explanation of *material* phenomena, an *immaterial* being, which is even more extraordinary than the things it is said to explain? A more parsimonious view is to conclude that the universe is all that there is, and that accordingly everything to be explained will be explicable in terms of what that universe contains (**Extract 1**).

D'Holbach is doing no more than underscoring what had already been said to even greater philosophical effect by his contemporary, and sometime dinner-guest, David Hume (1711-1776).<sup>5</sup> Admittedly, within the atheistic tradition Hume occupies a problematic position. From one perspective he stands not as an atheist but as the supreme representative of eighteenth century scepticism, and a scepticism, moreover, not of the extreme pyrrhonic brand – which denied the very possibility of knowledge altogether and so relapsed into a quietist state of suspended judgment<sup>6</sup>

5. The famous story of Hume dining with D'Holbach is told by Denis Diderot (1713-1784), who was present: 'The first time that M. Hume found himself at the table of the Baron he was seated beside him. I do not know for what purpose the English (*sic*) philosopher took it into his head to remark to the Baron that he did not believe in atheists, that he had never seen any. The Baron said to him: 'Count how many we are here.' We are eighteen. The Baron added: 'It is not too bad a showing to be able to point out to you fifteen at once: the three others have not made up their minds.' Quoted by E. Mossner, *Life of David Hume*, Oxford, 1970. David Berman thinks that the story should not be taken at face value, and that, decoded, Hume's message 'amounted to a repudiation of the word "atheism" and an affirmation of something close to atheism'. (*Op.cit.*, p. 103).

6. See above, p. 51.

– but of a more temperate kind, which does not say that no knowledge is possible but rather that what knowledge of the world is obtainable is restricted to the sum of our conscious experience, to our feelings and habits. This restriction, however, when viewed from another perspective, has a net result of enormous significance and explains why Hume holds his place within the atheistic canon. For the restriction of knowledge to our conscious experience means that, being now unable to obtain any experience of the nature of God or of the origin of the universe, no case for the ‘religious hypothesis’, or indeed for any metaphysical system, can be deployed with any cognitive certainty. On these grounds, Hume dismisses the arguments from cause



David Hume

and design. His objections first appear in his *A Treatise of Human Nature* (1739-1740), and then in his *Enquiry Concerning Human Understanding* (1748); but they receive their fullest expression in his *Dialogues Concerning Natural Religion* (1779), which on advice from Adam Smith was published posthumously. The criticisms that Hume now advances cannot be overestimated and for many philosophers they remain decisive. Space here forbids a lengthy account of them; but the following numbered progression of arguments will, I hope, be sufficient for our purposes.<sup>7</sup>

1. Both the causal and design arguments depend on the important presupposition 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 uniformly the same’.<sup>8</sup> But this general principle of uniformity, says Hume, cannot be logically justified. For while the principle may, perfectly properly, lead us to assume that the future will resemble the past, and while it does undoubtedly play a vital role in the organisation of our everyday affairs, no ‘necessary connection’ in fact holds between them. It is rather that our constant experiencing of the same sequence of events – that whenever we meet with an A it has been followed by a B – creates in us a ‘habit’ or ‘custom’ of expecting that this will *always* be the case. And the same 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, here too, there is a ‘determination of the mind’ or *psychological disposition* in this instance to think in a causal way.

7. A further account of Hume’s argument is given below in the introduction to the extract from the *Dialogues*, pp. 113-114.

8. *A Treatise of Human Nature* (1739), ed. L.A. Selby-Bigge, London, Oxford University Press, 1965, p. 89.

This assumes that there must be an actual and necessary link between one event and another, whereas in fact none is either self-evident or demonstrable. Thus there is no inconsistency in holding that nature is not uniform, while any argument from experience that says that it is (Aquinas) is presupposing what it must first establish.

2. The claim that God is the single and ultimate cause of the universe is equally fallacious. 'But the WHOLE you say, wants a Cause . . . 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.'<sup>9</sup> Logicians call this the 'fallacy of composition': it consists in claiming that, since every member of a class has a certain property, the class as a whole has the same property. Examples are: 'Every man has a mother; therefore the human race has a mother' or 'Every member of that football team is great; therefore that team is great.'<sup>10</sup> What is interesting about this fallacy is that, with different content, no fallacy is committed at all (e.g., 'Every member of the constituency voted Labour; therefore it is a Labour constituency'). Hume's point, however, is that if, as in the causal argument, the explanation of the existence of each object in the universe is said to leave the existence of the universe unexplained, then the fallacy is committed. So, to give a well-known example, if five Eskimos are in New York, and we can explain why each Eskimo is there, no explanation is required to explain why the group as a whole is there.<sup>11</sup> Nor is it difficult to see why the fallacy is often committed. Collective words like 'group', 'class', 'world' or 'universe' often function in sentences as if they refer to specific objects; and it is therefore 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 different 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.

3. But even if this last point is not accepted, and we repeat that only an explanatory ultimate, lying outside the finite series of contingent things, can provide a sufficient reason for the existence of the universe, for why there should be therefore something and not nothing – for why, in other words, there should be any Eskimos at all to be in New York, or why indeed there should be a New York to

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9. *Dialogues Concerning Natural Religion*, edited with an Introduction by Norman Kemp Smith, London, Thomas Nelson & Sons, 1947, pp. 190-191.

10. The same mistake is committed in the 'quantifier-shift' fallacy. Here particular quantifiers (like 'some' or 'every') shift position during the course of the argument, moving from premise to conclusion. So: 1) *Every* member M of a group bears the relation R to *some* X; 2) Therefore, *some* particular X bears the relation R to *every* M. Or: 1) Every member of the class is loved by some one; 2) Therefore, there is some one who loves every one – doubtless the all-embracing Super-Lover! But, as with the fallacy of composition, if we reverse the components, no fallacy is committed: 1) There is some one who loves every one; 2) Therefore every one is loved by some one. These examples show how easy it is to commit the fallacy.

11. Given by Paul Edwards in his 'Introduction', *A Modern Introduction to Philosophy*, ed. Paul Edwards and Arthur Pap, New York, The Free Press, 1965, p. 380.

have them there – Hume replies with a further objection, which again underlines his insistence that cosmological explanations should be anchored in experience. The demand for an explanatory ultimate to explain the universe as a whole is fulfilled with an identification of God as First Cause, but one in which the question, ‘What, then, caused God?’ is ruled out as inadmissible. In other words, God is presumed to be the only candidate for the job of First Cause. But why stop here? For if God can be self-caused, why cannot the universe itself be self-caused? This possibility, which has the great merit of assuming that nothing can exist apart from the totality of all existing things (i.e., the universe), requires no supernatural agent or divine author: the world, evolving from the primordial supply of matter, actualises itself. And this alternative has the further merit of never extending itself beyond the realm of sense-experience within which it operates, of never assuming on the basis of our immediate experience of the operations of cause and effect that these operations can, as it were, overreach themselves and have equal application in a realm of which we have no direct experience but within which, it is said, exists the Uncaused Cause.<sup>12</sup> It is not therefore that God does not exist but rather that we have, within the limits imposed by Hume’s scepticism, no means of assessing the validity of any argument that says that he exists.

4. Hume’s criticisms of the design argument are similarly incisive (**Extract 2**). He first addresses the crucial analogy made between the universe and a machine, which is the initial step, we recall, towards the conclusion that both are the products of a purposive intelligence. But the analogy is unsound. First of all, the uniqueness of the universe weakens any claim that it resembles any artifact, be it a watch, house or a ship. For while we are able to judge from within our experience that watchmakers make watches and builders build houses, we have no experience of a plurality of universes from which we may infer that it is gods (or a God) that make universes. Nor indeed can we even assume that the feature of the universe which believers take to be evidence of a designer at work – namely, the order and regularities evident in nature – pertain in fact to the universe *as a whole*. ‘A very small part of this great system, during a very short time, is very imperfectly discovered to us: and do we thence pronounce decisively concerning the origin of the whole?’<sup>13</sup>

5. But if we do wish to press the analogy, on the assumption that *like effects have like causes*, what are the grounds for concluding that the designer of the universe was an infinite, omnipotent, eternal and incorporeal being? Our experience is rather that machines are made by mortal, corporeal and human beings, either male or female, usually working together and invariably making mistakes, achieving the final product only through a process of gradual improvement. Why then should we not conclude that the world is similarly due to the combined efforts of many

12. A point elevated by Immanuel Kant (1724-1804) into a major epistemological doctrine: ‘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.’ *Critique of Pure Reason* (1781), trans. Norman Kemp Smith, London, Macmillan, 1929, p. 511.

13. *Dialogues*, p. 149.

gods; that it is perhaps the 'first rude essay of some infant deity, who afterwards abandoned it' or 'the production of old age and dotage in some super-annuated Deity', whose death left it to its own devices. Why should not many worlds 'have been botched and bungled, throughout an eternity, ere this system was struck out?'<sup>14</sup>

6. All these criticisms are important; but it is Hume's next that, for the future development of positive atheism, has attained the greatest significance, foreshadowing the single most persistent and forceful objection to be levelled against the design argument from the 19<sup>th</sup> century until the present day. For Aquinas and Paley the ordering of means to ends in nature is inexplicable without a purposive Creator. Hume now demonstrates the fallibility of this connection by proposing other schemes, lying entirely within the fold of our experience, which would account for the order observed. Some of these, admittedly, are suggested very much with tongue in cheek, but one of them stands out; and this, significantly enough, re-introduces us to the by now familiar atomic theory of Epicurus, in which the universe evolves out of a primordial and immeasurable plurality of uncreated and indivisible particles. '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 to preserve an uniformity of appearance, amidst the continual motion and fluctuation of its parts?'<sup>15</sup> This possibility weakens the analogy between world and artifact almost beyond recovery: the analogy can no longer be upheld if the effects can be accounted for by other means. Once again, therefore, we have to decide between two rival hypotheses: between, on the one hand, *authentic design* (i.e., the world is the product of a designer) and, on the other, *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 this evidence is insufficient to support one hypothesis over the other.<sup>16</sup> This conclusion, it must be said, is not a recipe for outright atheism – Hume's scepticism prevents him from going quite that far – but then neither is it entirely open-ended. Indeed, the weighting thus far has been so entirely against the theistic use of analogy that we can with some certainty deduce – particularly when coupled with the relevant biographical evidence – that Hume's own private sympathies were entirely for an undesigned re-creative material system of nature, in which the only ultimate is the universe itself; or rather, that no analogical argument can lead to the discovery of a new and qualitatively different reality; and certainly not to a supra-empirical reality utterly distinct from those ordinary empirical experiences from which its existence was first inferred.

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14. *Ibid.*, p. 167.

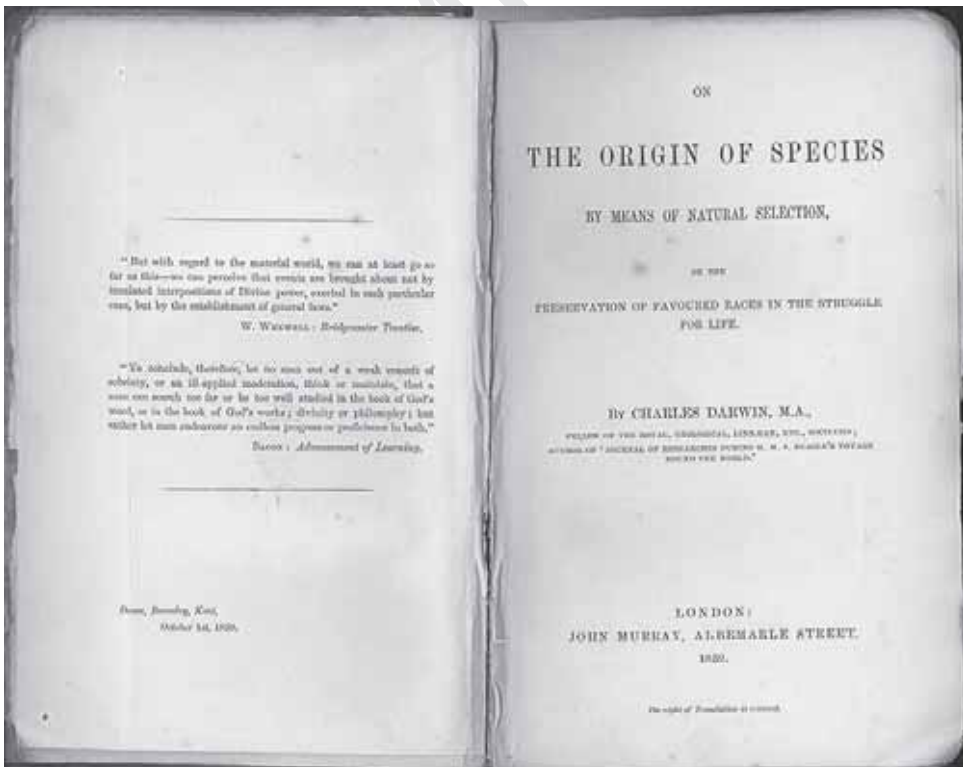
15. *Ibid.*, p. 184.

16. To suppose that it does is, indeed, to commit the fallacy of the 'affirmation of the consequent'. The logical form of this 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 is fairly obvious, given that there may be a whole host of reasons, quite apart from indigestion, that account for Max's irritability. The fallacy operative in the design argument is the same: it too specifies a single cause for the given effect when in fact there may be more than one antecedent which leads to a particular consequent.



Charles Darwin

What, of course, is missing is that, at the time of Hume's proposal, no adequate scientific hypothesis existed to show how a material system of nature could account for the intricacy and order of the world; and until a convincing body of evidence was forthcoming in support of this naturalist alternative, the religious explanation of intelligent design would continue to attract support. But all this was to change eighty-three years after Hume's death, with the publication in 1859 of the *Origin of Species* by Charles Darwin (1809-1882). Darwin's primary contribution to the demise of the design argument was to lend detailed scientific support to Hume's philosophical speculations about the diversity of causal explanation, and to provide a mechanism that could show that at least one of Hume's tentative explanations for the appearance



*The Origin of Species*, 1859



of design – the so-called Epicurean hypothesis – far from being absurd, had in fact scientific support. This was provided by the theory of natural selection, an explanatory, self-regulating and entirely mechanical theory that could explain the evolution of species. The living organisms and intricate structures so admired by theologians did not emerge from the care taken by a divine being plotting the course of his creation, but evolved from a gradual process of species modification over enormous periods of time, of an ‘adaptation to the environment’ operating on whole populations of organisms, in which only those with beneficial modifications would survive in the competitive struggle for existence.

If under changing conditions of life organic beings present individual differences in almost every part of their structure, and this cannot be disputed; if there be, owing to their geometrical rate of increase, a severe struggle for life at some age, season, or year, and this certainly cannot be disputed; then, considering the infinite complexity of the relations of all organic beings to each other and to their conditions of life, causing an infinite diversity in structure, constitution, and habits, to be advantageous to them, it would be an extraordinary fact if no variations had ever occurred useful to each being’s own welfare, in the same manner as so many variations have occurred useful to man. But if variations useful to any organic being ever do occur, assuredly individuals thus characterised will have the best chance of being preserved in the struggle for life; and for the strong principle of inheritance, these will tend to produce offspring similarly characterised. This principle of preservation, or the survival of the fittest, I have called Natural Selection.<sup>17</sup>

The scandal of Darwinism to the religious minds of the nineteenth century 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 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 the atomistic theories first presented in classical antiquity and later used by Hume. Once again 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. This demolished the basis of purposive explanation. The sting of the theory, as Darwin himself makes clear, lies not so much then in the supposition that species develop gradually over vast stretches of time but in the suggestion that it is mechanical and haphazard factors that govern this development.

Although I did not think much about the existence of a personal God until a considerably later period of my life, I will here give the vague conclusions to which I have been driven. The old argument from design in nature, as

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17. *The Origin of Species by Means of Natural Selection*, 6<sup>th</sup> edition, London, John Murray, 1888, pp. 102-103.

given in Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings and in the action of natural selection, than in the course which the wind blows.<sup>18</sup>

Darwin's theory of natural selection has emerged from the 19<sup>th</sup> into the 20<sup>th</sup> and 21<sup>st</sup> centuries as the single most widely-canvassed argument deployed against the notion of a designing deity; and from its home in biology the evolutionary hypothesis has evolved into a fully comprehensive and totally mechanistic interpretation of nature of unique explanatory power, corroborated in a great variety of disciplines: in, for example, molecular biology and genetics, which has revealed the mechanism of inheritance in the nucleic acid called DNA; or in the geological documentation of a common ancestry in the fossil record, which has provided direct evidence of evolutionary transitions: of, for example, the evolution of terrestrial amphibians from fishes or of mammals from reptiles. But set within the even grander and more all-encompassing perspective of 'cosmic evolution', biological evolution is now seen as an important but yet minor part of an evolutionary scheme of truly universal dimensions in the arrangement of the solar system and galaxies, in which the cosmos – 'all that is or ever was or ever will be', to quote Carl Sagan<sup>19</sup> – remains subject to the determinants of time, chance and natural law, and so without design or a predictable destiny.

This is admittedly a long way from Darwin's original hypothesis. All that needs to be said, however, is that in all these neo-evolutionary applications preference is rarely given to a divine explanation for either terrestrial or astronomical phenomena. Small wonder, then, that the overwhelming majority of scientists has dismissed any attempt to resuscitate the theistic option of a creator God and that they have become increasingly vocal in their attack upon the more recent theories of 'intelligent design', as exemplified by Michael Behe's 'irreducible complexity' and William Dembski's 'design inference'.<sup>20</sup> Among these critics special mention should be made of Stephen Jay Gould (**Extract 3**), Peter Atkins, Louis Wolpert, Victor Stenger, Daniel Dennett, and, most militant of all, Richard Dawkins.

Before leaving the design argument I should like to refer briefly to one modern variant, which has received wide currency. This is the so-called 'fine-tuning' argument, sometimes also known as the *anthropic teleological argument*. Here the infinite range of conditions that would make life impossible is contrasted with the extraordinary improbability of achieving those conditions to make life actual. The Oxford mathematician Roger Penrose has estimated, for instance, that the prob-

18. 'Autobiography' (1903) in *Charles Darwin and T H. Huxley: Autobiographies*, edited with an Introduction by Gavin de Beer, London, Oxford University Press, 1974, p. 70.

19. *Cosmos*, New York, Random House, 1980, p. 4.

20. See Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution*, New York, Free Press, 1996; and Dembski, *The Design Inference*, Cambridge, Cambridge University Press, 1998.

ability of a universe with our particular set of physical properties is one part in one followed by  $10^{123}$  decimal places.<sup>21</sup> The fine-tuning argument therefore rejects the theory of coincidence on grounds of the extreme unlikelihood of our world and human beings (*anthropoi*) appearing from random evolution. A much more plausible explanation is to invoke the agency of a divine being, who has fine-tuned or custom-made the laws and constants of nature for the creation of intelligent life.

As I have indicated elsewhere,<sup>22</sup> I regard this argument as very weak, a view supported in detail by the physicist Victor Stenger (**Extract 4**). Three criticisms are, however, worth mentioning immediately. First, a counter-argument to the anthropic calculation can be mounted to show that the extreme statistical improbability of any number of mundane events does not preclude their origin by chance. So John Allen Paulos estimates that the probability of receiving a particular bridge hand of thirteen cards is approximately one in 600 billion – a statistical enormity that provides no reason to believe that behind the appearance of random dealing lies some bodiless super-dealer.<sup>23</sup> Second, in order to support the view that this fine-tuned universe is best explained by the operation of an intelligent agent, we should need some past experience of the genesis of other worlds from which to draw this inference. But to adapt Hume's previous objection, we have no such experience, and the only place where we have thus far observed the constants to be right is in only one world in one universe, which is ours. If we assume, however, that there may well exist outside our observational scope an infinite number of other universes, or other regions of space-time, each varying in their initial conditions and fundamental constants, it becomes less surprising that one of them is life-permitting, and that this particular 'fine-tuned' universe may, for all we know, be one microscopic part of an infinite and completely random whole. But quite why we should assume that this (largely unknown) macrocosm should mirror the (largely known) microcosm is hard to see.

My third criticism is this. While the 'fine-tuning' argument leads in one direction – that intelligent life without a creator is highly improbable – we may here invoke an 'incompetent tuning' argument, which leads in another: that the often adverse conditions of life and the innumerable instances of organic malfunctions – e.g., the existence of genetic disorders such as Huntington's Chorea and the inability of DNA to self-repair – lead us to suppose that the responsible deity is inefficient, malevolent and unworthy of worship. For Darwin it was the paradigm-example of the *Ichneumonae* that convinced him of God's profligate injustice. This is a parasitic insect group whose females lay their eggs in or on the larvae or pupae of other insects, often moths and butterflies, whose young then proceed to feed on the fats and body fluids of their hosts, literally eating them alive. Paley, I should add, believed that he could resolve this kind of difficulty. For, after all, the fact that the watch can and does sometimes go wrong does not invalidate the claim that it

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21. *The Emperor's New Mind*, Oxford, Oxford University Press, 1989, p. 343.

22. *The Question of God*, p. 135.

23. *Innumeracy: Mathematical Illiteracy and Its Consequences*, London, Viking Press, 1989.

is designed. So much, of course, is true. But it clearly does make a difference to our understanding of the watchmaker if what goes wrong is not seen to be merely excessive but *the primary mechanism by which the watch operates*. This is where the evolutionary explanation conclusively out-distances the theistic explanation. According to Darwin, the mechanism by which species evolve is the process of natural selection, and this process is frequently wasteful and invariably cruel. So long as this is assumed, we must then suppose that the God implied by evolution, far from being benevolent, is almost totally unconcerned for the welfare of his creatures and almost totally unmoved by the suffering which he has planned for them.

## TEXTS

### 1. BARON D'HOLBACH: THE SYSTEM OF NATURE

#### Biographical summary

Paul Heinrich Dietrich, Baron D'Holbach (1723-1789) was born in Edesheim, Germany, but raised in France, inheriting his title, and vast fortune, from his uncle in 1753. His nickname, 'le premier maître d'hôtel de la philosophie', was certainly apt. His enormous wealth funded one of the most important and hospitable salons in Paris, which was to run for over thirty years, from the 1750s onwards. This became a famous meeting place for many of D'Holbach's fellow-contributors to the *Encyclopédie*, most notably Denis Diderot, and for other intellectuals invited from abroad: Adam Smith, David Hume, Horace Walpole and Edward Gibbon, to mention just a few, were all wined and dined. Almost from the first D'Holbach made no attempt to hide his militant materialist-atheism, attacking Christianity and religion generally in a series of books. To avoid persecution almost all were published abroad, either anonymously or under false names. These include *Christianity Unveiled* (1761), *The Holy Disease* (1768), and, in 1770, his most famous work, *The System of Nature*, which is generally regarded as the first openly atheistic book to be published in Europe. Such was the outcry on publication that the Catholic Church in France threatened the Crown with the withdrawal of its financial support unless circulation was suppressed, and the book was publicly burned. Undaunted, D'Holbach provided a popular summary of his radical ideas in his *Common Sense or Natural Ideas Opposed to Supernatural* (1772), and in 1776 published his *Universal Morality*, in which he denounces any suggestion that religion is a prerequisite of morality. Rousseau, who disliked D'Holbach, immortalised him in *Julie or the New Heloise* (1761) as the 'virtuous unbeliever' Womar, a church-attending atheist. For further information see Alan Kors, *D'Holbach's Coterie*, Princeton, Princeton University Press, 1976; and Max Pearson Cushing, *Baron D'Holbach: A Study in 18<sup>th</sup> century Radicalism* (1914), reprinted by Kessinger Publishing, Montana, 2004. The standard biography is by W. H. Wickwar, *Baron D'Holbach*, London, George Allen & Unwin, 1935.

#### Philosophical summary

Sometimes nicknamed 'The Atheist's Bible', *The System of Nature*, while unoriginal in its ideas, owes its notoriety to its thoroughgoing atheistic materialism and to its attempt to expose religion as a superstition foisted upon the weak and gullible by deluded visionaries