CLEANTHES: 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 all nature, resembles exactly, though it much exceeds, the productions of human contrivance; of human designs, 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, 2 and by this argument alone, do we prove at once the existence of a Deity, and his similarity to human mind and intelligence.

DEMEA: I shall be so free, Cleanthes, as to tell you, that from the beginning, I could not approve of your conclusion concerning the similarity of the Deity to men; still less can I approve of the mediums by which you endeavor to establish it. What! No demonstration 3 of the Being of God! No abstract arguments! No proofs a priori 4! Are these, which have hitherto been so much insisted on by philosophers, all fallacy, all sophism? Can we reach no further in this subject than experience and probability? I will not say that this is betraying the cause of a Deity: But surely, by this affected candor, you give advantages to Atheists, which they never could obtain by the mere dint of argument and reasoning.

PHILO: What I chiefly scruple in this subject, is not so much that all religious arguments are by Cleanthes reduced to experience, as that they appear not to be even the most certain and irrefragable of that inferior kind. That a stone will fall, that fire will burn, that the earth has solidity, we have observed a thousand and a thousand times; and when any new instance of this nature is presented, we draw without hesitation the accustomed inference. The exact similarity of the cases gives us a perfect assurance of a similar event; and a stronger evidence is never desired nor sought after. But wherever you depart, in the least, from the similarity of the cases, you diminish proportionately the evidence; and may at last bring it to a very weak analogy, which is confessedly liable to error and
uncertainty. After having experienced the circulation of the blood in human creatures, we make no doubt that it takes place in Titius and Maevius [i.e., in particular men]. But from its circulation in frogs and fishes, it is only a presumption, though a strong one, from analogy, that it takes place in men and other animals. The analogical reasoning is much weaker, when we infer the circulation of the sap in vegetables from our experience that the blood circulates in animals; and those, who hastily followed that imperfect analogy, are found, by more accurate experiments, to have been mistaken.

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.

CLEANTHES: It would surely be very ill received; and I should be deservedly blamed and detested, did I allow, that the proofs of a Deity amounted to no more than a guess or conjecture. But is the whole adjustment of means to ends in a house and in the universe so slight a resemblance? The economy of final causes? The order, proportion, and arrangement of every part? Steps of a stair are plainly contrived, that human legs may use them in mounting; and this inference is certain and infallible. Human legs are also contrived for walking and mounting; and this inference, I allow, is not altogether so certain, because of the dissimilarity which you remark; but does it, therefore, deserve the name only of presumption or conjecture?

DEMEA: Good God! Where are we? Zealous defenders of religion allow that the proofs of a Deity fall short of perfect evidence! And you, Philo, on whose assistance I depended in proving the adorable mysteriousness of the Divine Nature, do you assent to all these extravagant opinions of Cleanthes? For what other name can I give them or, why spare my censure, when such principles are advanced, supported by such an authority, before so young a man as Pamphilus?

PHILO: You seem not to apprehend, that I argue with Cleanthes in his own way; and, by showing him the dangerous consequences of his tenets, hope at last to reduce him to our opinion. But what sticks most with you, I observe, is the representation which Cleanthes has made of the argument a posteriori; and finding that that argument is likely to escape your hold and vanish into air, you think it so disguised, that you can scarcely believe it to be set in its true light. Now, however much I may dissent, in other respects, from the dangerous principles of Cleanthes, I must allow that he has fairly represented that argument; and I shall endeavor so to state the matter to you, that you will entertain no further scruples with regard to it.

Were a man to abstract from every thing which he knows or has seen, he would be altogether incapable, merely from his own ideas, to determine what kind of scene the universe must be, or to give the preference to one state or situation of things above another. For as nothing which he clearly conceives could be esteemed impossible or implying a contradiction, every chimera of his fancy would be upon an equal footing; nor could he assign any just reason why he adheres to one idea or

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5 By ‘mysteriousness’ Demea means to suggest that the nature of God is unknowable without the aid of divine revelation.
6 A character in the dialogues who does not speak in this section.
system, and rejects the others which are equally possible.

Again; after he opens his eyes, and contemplates the world as it really is, it would be impossible for him at first to assign the cause of any one event, much less of the whole of things, or of the universe. He might set his fancy a rambling; and she might bring him in an infinite variety of reports and representations. These would all be possible; but being all equally possible, he would never of himself give a satisfactory account for his preferring one of them to the rest. Experience alone can point out to him the true cause of any phenomenon.

Now, according to this method of reasoning, Demea, it follows, (and is, indeed, tacitly allowed by Cleanthes himself,) that order, arrangement, or the adjustment of final causes, is not of itself any proof of design; but only so far as it has been experienced to proceed from that principle. For aught we can know a priori, matter may contain the source or spring of order originally within itself, as well as mind does; and there is no more difficulty in conceiving, that the several elements, from an internal unknown cause, may fall into the most exquisite arrangement, than to conceive that their ideas, in the great universal mind, from a like internal unknown cause, fall into that arrangement. The equal possibility of both these suppositions is allowed. But, by experience, we find, (according to Cleanthes), that there is a difference between them. Throw several pieces of steel together, without shape or form; they will never arrange themselves so as to compose a watch. Stone, and mortar, and wood, without an architect, never erect a house. But the ideas in a human mind, we see, by an unknown, inexplicable economy, arrange themselves so as to form the plan of a watch or house. Experience, therefore, proves, that there is an original principle of order in mind, not in matter. From similar effects we infer similar causes. The adjustment of means to ends is alike in the universe, as in a machine of human contrivance. The causes, therefore, must be resembling.

I was from the beginning scandalized, I must own, with this resemblance, which is asserted, between the Deity and human creatures; and must conceive it to imply such a degradation of the Supreme Being as no sound Theist could endure. With your assistance, therefore, Demea, I shall endeavor to defend what you justly call the adorable mysteriousness of the Divine Nature, and shall refute this reasoning of Cleanthes, provided he allows that I have made a fair representation of it.

When Cleanthes had assented, Philo, after a short pause, proceeded in the following manner.

PHILO: That all inferences, Cleanthes, concerning fact, are founded on experience; and that all experimental reasonings are founded on the supposition that similar causes prove similar effects, and similar effects similar causes; I shall not at present much dispute with you. But observe, I entreat you, with what extreme caution all just reasoners proceed in the transferring of experiments to similar cases. Unless the cases be exactly similar, they repose no perfect confidence in applying their past observation to any particular phenomenon. Every alteration of circumstances occasions a doubt concerning the event; and it requires new experiments to prove certainly, that the new circumstances are of no moment or importance. A change in bulk, situation, arrangement, age, disposition of the air, or surrounding bodies; any of these particulars may be attended with the most unexpected consequences: and unless the objects be quite familiar to us, it is the highest temerity to expect with assurance, after any of these changes, an event similar to that which before fell under our observation. The slow and deliberate steps of philosophers here, if any where, are distinguished
from the precipitate march of the vulgar, who, hurried on by the smallest similitude, are incapable of all discernment or consideration.

But can you think, Cleanthes, that your usual phlegm and philosophy have been preserved in so wide a step as you have taken, when you compared to the universe houses, ships, furniture, machines, and, from their similarity in some circumstances, inferred a similarity in their causes? 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 any thing 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?

But, allowing that we were to take the operations of one part of nature upon another, for the foundation of our judgment concerning the origin of the whole, (which never can be admitted,) yet why select so minute, so weak, so bounded a principle, as the reason and design of animals is found to be upon this planet? What peculiar privilege has this little agitation of the brain which we call ‘thought’, that we must thus make it the model of the whole universe? Our partiality in our own favor does indeed present it on all occasions; but sound philosophy ought carefully to guard against so natural an illusion.

So far from admitting that the operations of a part can afford us any just conclusion concerning the origin of the whole, I will not allow any one part to form a rule for another part, if the latter be very remote from the former. Is there any reasonable ground to conclude, that the inhabitants of other planets possess thought, intelligence, reason, or any thing similar to these faculties in men? When nature has so extremely diversified her manner of operation in this small globe, can we imagine that she incessantly copies herself throughout so immense a universe? And if thought, as we may well suppose, be confined merely to this narrow corner, and has even there so limited a sphere of action, with what propriety can we assign it for the original cause of all things? The narrow views of a peasant, who makes his domestic economy the rule for the government of kingdoms, is in comparison a pardonable sophism.

But were we ever so much assured, that a thought and reason, resembling the human, were to be found throughout the whole universe, and were its activity elsewhere vastly greater and more commanding than it appears in this globe; yet I cannot see, why the operations of a world constituted, arranged, adjusted, can with any propriety be extended to a world which is in its embryo state, and is advancing towards that constitution and arrangement. By observation, we know some[thing] of the economy, action, and nourishment of a finished animal; but we must transfer with great caution that observation to the growth of a fetus in the womb, and still more to the formation of an animalcule⁷ in the loins of its male parent. Nature, we find, even from our limited experience, possesses an infinite number of springs and principles, which incessantly discover themselves on every change of her position and situation. And what new and unknown principles would actuate her in so new and unknown a situation as that of the formation of a universe, we cannot, without the

⁷ Latin, “little animal.” This is an archaic term for ‘microorganism’ and is used here by Philo to refer to sperm.
utmost temerity, pretend to determine.

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?

Admirable conclusion! Stone, wood, brick, iron, brass, have not, at this time, in this minute globe of earth, an order or arrangement without human art and contrivance; therefore the universe could not originally attain its order and arrangement, without something similar to human art. But is a part of nature a rule for another part very wide of the former? Is it a rule for the whole? Is a very small part a rule for the universe? Is nature in one situation, a certain rule for nature in another situation vastly different from the former?

And can you blame me, Cleanthes, if I here imitate the prudent reserve of Simonides, who, according to the noted story, being asked by Hiero, “What God was?” desired a day to think of it, and then two days more; and after that manner continually prolonged the term, without ever bringing in his definition or description? Could you even blame me, if I had answered at first, that I did not know, and was sensible that this subject lay vastly beyond the reach of my faculties? You might cry out skeptic and railler, as much as you pleased: but having found, in so many other subjects much more familiar, the imperfections and even contradictions of human reason, I never should expect any success from its feeble conjectures, in a subject so sublime, and so remote from the sphere of our observation. 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...

But to show you still more inconveniences, continued in your anthropomorphism, please to take a new survey of your principles. Like effects prove like causes. This is the experimental argument; and this, you say too, is the sole theological argument. Now, it is certain, that the liker the effects are which are seen, and the liker the causes which are inferred, the stronger is the argument. Every departure on either side diminishes the probability, and renders the experiment less conclusive. You cannot doubt of the principle; neither ought you to reject its consequences.

All the new discoveries in astronomy, which prove the immense grandeur and magnificence of the works of Nature, are so many additional arguments for a Deity, according to the true system of Theism; but, according to your hypothesis of experimental Theism, they become so many objections, by removing the effect still further from all resemblance to the effects of human art and contrivance. For, if Lucretius, even following the old system of the world, could exclaim,

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8 Simonides of Keos (c.556-468 BCE) was a lyric poet noted for his ability to portray the complexities of human life in very simple terms.
9 Someone who mocks or jeers others.
10 Titus Lucretius Carus (99-55 BCE) was a Roman philosopher and poet. His views are dominated by the work of Epikuros and he is attributed with introducing Epicureanism to the Roman world. Epicureanism is dominated by a
If Tully\textsuperscript{12} esteemed this reasoning so natural, as to put it into the mouth of his Epicurean:

\begin{quote}
Quibus enim oculis animi intueri potuit vester Plato fabricam illam tanti operis, qua construi a Deo atque aedificari mundum facit? quae molitio? quae ferramenta? qui vectes? quae machinae? qui ministri tanti muneris fuerunt? quemadmodum autem obedire et parere voluntati architecti aer, ignis, aqua, terra potuerunt?\textsuperscript{13}
\end{quote}

If this argument, I say, had any force in former ages, how much greater must it have at present, when the bounds of Nature are so infinitely enlarged, and such a magnificent scene is opened to us? It is still more unreasonable to form our idea of so unlimited a cause from our experience of the narrow productions of human design and invention.

The discoveries by microscopes, as they open a new universe in miniature, are still objections, according to you, arguments, according to me. The further we push our researches of this kind, we are still led to infer the universal cause of all to be vastly different from mankind, or from any object of human experience and observation.

And what say you to the discoveries in anatomy, chemistry, botany?...

**CLEANTHES:** These surely are no objections, they only discover new instances of art and contrivance. It is still the image of mind reflected on us from innumerable objects.

**PHILO:** Add, a mind like the human.

**CLEANTHES:** I know of no other.

**PHILO:** And the liker the better?

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materialistic—specifically, atomistic—ontology. Given that humans are, like the rest of the universe, nothing but a random collection of atoms moving through a void, the end or purpose of human life is concluded to be maximizing pleasure through an avoidance of discomfort. However, this does not mean excitement of the physical sense of pleasure, but rather an intellectual life that avoids ordinary entitlements that cause stress.

\textsuperscript{11} “Who is strong enough to rule the sun, who to hold in hand and control the mighty bridle of the unfathomable deep? Who to turn about all the heavens at one time, and warm the fruitful worlds with eather’s fires, or to be present in all places and at all times?” \textit{On the Nature of Things}, Book 2, 1096-1099.

\textsuperscript{12} Marcus Tullius Cicero (106-43 BCE) was a Roman philosopher, Senator, and orator

\textsuperscript{13} “What power of mental vision enabled your master Plato to descry the vast and elaborate architectural process which, as he makes out the deity adopted in building the structure of the universe? What method of engineering was employed? What tools and levers and derricks? What agents carried out so vast an understanding? And how were air, fire, water, and earth enabled to obey and execute the will of the architect?” \textit{The Nature of the Gods}, Book I, 8;19.
CLEANTHES: To be sure.

PHILO: Now, Cleanthes, mark the consequences. First, by this method of reasoning, you renounce all claims to infinity in any of the attributes of the Deity. For, as the cause ought only to be proportioned to the effect, and the effect, so far as it falls under our cognizance, is not infinite; what pretensions have we, upon your suppositions, to ascribe that attribute to the Divine Being? You will still insist, that, by removing him so much from all similarity to human creatures, we give in to the most arbitrary hypothesis, and at the same time weaken all proofs of his existence.

Secondly, You have no reason, on your theory, for ascribing perfection to the Deity, even in his finite capacity, or for supposing him free from every error, mistake, or incoherence, in his undertakings. There are many inexplicable difficulties in the works of Nature, which, if we allow a perfect author to be proved a priori, are easily solved, and become only seeming difficulties, from the narrow capacity of man, who cannot trace infinite relations. But according to your method of reasoning, these difficulties become all real; and perhaps will be insisted on, as new instances of likeness to human art and contrivance. At least, you must acknowledge, that it is impossible for us to tell, from our limited views, whether this system contains any great faults, or deserves any considerable praise, if compared to other possible, and even real systems. Could a peasant, if the Aeneid were read to him, pronounce that poem to be absolutely faultless, or even assign to it its proper rank among the productions of human wit, he, who had never seen any other production?

But were this world ever so perfect a production, it must still remain uncertain, whether all the excellences 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 feel, 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 labor 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 which may be imagined?

And what shadow of an argument 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. By sharing the work among several, we may so much further limit the attributes of each, and get rid of that extensive power and knowledge, which must be supposed in one deity, and which, according to you, can only serve to weaken the proof of his existence. And if such foolish, such vicious creatures as man, can yet often unite in framing and executing one plan, how much more those deities or demons, whom we may suppose several degrees more perfect!

To multiply causes without necessity, is indeed contrary to true philosophy: but this principle applies not to the present case. Were one deity antecedently proved by your theory, who were possessed of
every attribute requisite to the production of the universe; it would be needless, I own, (though not absurd,) to suppose any other deity existent. But while it is still a question, whether all these attributes are united in one subject, or dispersed among several independent beings, by what phenomena in nature can we pretend to decide the controversy? Where we see a body raised in a scale, we are sure that there is in the opposite scale, however concealed from sight, some counterpoising weight equal to it; but it is still allowed to doubt, whether that weight be an aggregate of several distinct bodies, or one uniform united mass. And if the weight requisite very much exceeds any thing which we have ever seen conjoined in any single body, the former supposition becomes still more probable and natural. An intelligent being of such vast power and capacity as is necessary to produce the universe, or, to speak in the language of ancient philosophy, so prodigious an animal exceeds all analogy, and even comprehension.

But further, Cleanthes, men are mortal, and renew their species by generation; and this is common to all living creatures. The two great sexes of male and female, says Milton, animate the world. Why must this circumstance, so universal, so essential, be excluded from those numerous and limited deities? Behold, then, the theogony of ancient times brought back upon us.

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.? Epikuros 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.

In a word, Cleanthes, a man who follows your hypothesis is able, perhaps, to assert or conjecture, that the universe, sometime, arose from something like design: but beyond that position he cannot ascertain one single circumstance; and is left afterwards to fix every point of his theology by the utmost license of fancy and hypothesis. This world, for aught he knows, is very faulty and imperfect, compared to a superior standard; and was only the first rude essay of some infant deity, who afterwards abandoned it, ashamed of his lame performance: it is the work of some dependent, inferior deity; and is the object of derision to his superiors: it is the production of old age and dotage in some superannuated deity; and ever since his death, has run on at adventures, from the first impulse and active force which it received from him. You justly give signs of horror, Demea, at these strange suppositions; but these, and a thousand more of the same kind, are Cleanthes’s suppositions, not mine. From the moment the attributes of the Deity are supposed finite, all these have place. And I cannot, for my part, think that so wild and unsettled a system of theology is, in any respect, preferable to none at all.

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14 Greek term meaning “birth of the gods”. See Hesiod, Theogeny.
15 Someone who attributes human qualities to a non-human entity, in this case, God.