

known in AMERICA. Is it possible, that during the revolutions of a whole eternity, there never arose a COLUMBUS, who might open the communication between EUROPE and that continent? We may as well imagine, that all men would wear stockings for ten thousand years, and never have the sense to think of garters to tie them. All these seem convincing proofs of the youth, or rather infancy, of the world; as being founded on the operation of principles more constant and steady than those by which human society is governed and directed. Nothing less than a total convulsion of the elements will ever destroy all the EUROPEAN animals and vegetables which are now to be found in the Western world.

And what argument have you against such convulsions? replied PHILO. Strong and almost incontestable proofs may be traced over the whole earth, that every part of this globe has continued for many ages entirely covered with water. And though order were supposed inseparable from matter, and inherent in it; yet may matter be susceptible of many and great revolutions, through the endless periods of eternal duration. The incessant changes, to which every part of it is subject, seem to intimate some such general transformations; though, at the same time, it is observable, that all the changes and corruptions of which we have ever had experience, are but passages from one state of order to another; nor can matter ever rest in total deformity and confusion. What we see in the parts, we may infer in the whole; at least, that is the method of reasoning on which you rest your whole theory. And were I obliged to defend any particular system of this nature, which I never willingly should do, I esteem none more plausible than that which ascribes an eternal inherent principle of order to the world, though attended with great and continual revolutions and alterations. This at once solves all difficulties; and if the solution, by being so general, is not entirely complete and satisfactory, it is at least a theory that we must sooner or later have recourse to, whatever system we embrace. How could things have been as they are, were there not an original inherent principle of order somewhere, in thought or in matter? And it is very indifferent to which of these we give the preference. Chance has no place, on any hypothesis, sceptical or religious. Every thing is surely governed by steady, inviolable laws. And were the inmost essence of things laid open to us, we should then discover a scene, of which, at present, we can have no idea. Instead of admiring the order of natural beings, we should clearly see that it was absolutely impossible for them, in the smallest article, ever to admit of any other disposition.

Were any one inclined to revive the ancient Pagan Theology, which maintained, as we learn from HESIOD, that this globe was governed by 30,000 deities, who arose from the unknown powers of nature: you would naturally object, CLEANTHES, that nothing is gained by this hypothesis; and that it is as easy to suppose all men animals, beings more numerous, but less perfect, to have sprung immediately from a like origin. Push the same inference a step further, and you will find a numerous society of deities as explicable as one universal deity, who possesses within himself the powers and perfections of the whole society. All these systems, then, of Scepticism, Polytheism, and Theism, you must allow, on your principles, to be on a like footing, and that no one of them has any advantage over the others. You may thence learn the fallacy of your principles.

PART 7

But here, continued PHILO, in examining the ancient system of the soul of the world, there strikes me, all on a sudden, a new idea, which, if just, must go near to subvert all your reasoning, and destroy even your first inferences, on which you repose such confidence. If the universe bears a greater likeness to animal bodies and to vegetables, than to the works of human art, it is more probable that its cause resembles the cause of the former than that of the latter, and its origin ought rather to be ascribed to generation or vegetation, than to reason or design. Your conclusion, even according to your own principles, is therefore lame and defective.

Pray open up this argument a little further, said DEMEA, for I do not rightly apprehend it in that concise manner in which you have expressed it.

Our friend CLEANTHES, replied PHILO, as you have heard, asserts, that since no question of fact can be proved otherwise than by experience, the existence of a Deity admits not of proof from any other medium. The world, says he, resembles the works of human contrivance; therefore its cause must also resemble that of

the other. Here we may remark, that the operation of one very small part of nature, to wit man, upon another very small part, to wit that inanimate matter lying within his reach, is the rule by which CLEANTHES judges of the origin of the whole; and he measures objects, so widely disproportioned, by the same individual standard. But to waive all objections drawn from this topic, I affirm, that there are other parts of the universe (besides the machines of human invention) which bear still a greater resemblance to the fabric of the world, and which, therefore, afford a better conjecture concerning the universal origin of this system. These parts are animals and vegetables. The world plainly resembles more an animal or a vegetable, than it does a watch or a knitting-loom. Its cause, therefore, it is more probable, resembles the cause of the former. The cause of the former is generation or vegetation. The cause, therefore, of the world, we may infer to be something similar or analogous to generation or vegetation.

But how is it conceivable, said DEMEA, that the world can arise from any thing similar to vegetation or generation?

Very easily, replied PHILO. In like manner as a tree sheds its seed into the neighbouring fields, and produces other trees; so the great vegetable, the world, or this planetary system, produces within itself certain seeds, which, being scattered into the surrounding chaos, vegetate into new worlds. A comet, for instance, is the seed of a world; and after it has been fully ripened, by passing from sun to sun, and star to star, it is at last tossed into the unformed elements which every where surround this universe, and immediately sprouts up into a new system.

Or if, for the sake of variety (for I see no other advantage), we should suppose this world to be an animal; a comet is the egg of this animal: and in like manner as an ostrich lays its egg in the sand, which, without any further care, hatches the egg, and produces a new animal; so...

I understand you, says DEMEA: But what wild, arbitrary suppositions are these! What data have you for such extraordinary conclusions? And is the slight, imaginary resemblance of the world to a vegetable or an animal sufficient to establish the same inference with regard to both? Objects, which are in general so widely different, ought they to be a standard for each other?

Right, cries PHILO: This is the topic on which I have all along insisted. I have still asserted, 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?

But what is this vegetation and generation of which you talk? said DEMEA. Can you explain their operations, and anatomise that fine internal structure on which they depend?

As much, at least, replied PHILO, as CLEANTHES can explain the operations of reason, or anatomise that internal structure on which it depends. But without any such elaborate disquisitions, when I see an animal, I infer, that it sprang from generation; and that with as great certainty as you conclude a house to have been reared by design. These words, generation, reason, mark only certain powers and energies in nature, whose effects are known, but whose essence is incomprehensible; and one of these principles, more than the other, has no privilege for being made a standard to the whole of nature.

In reality, DEMEA, it may reasonably be expected, that the larger the views are which we take of things, the better will they conduct us in our conclusions concerning such extraordinary and such magnificent subjects. In this little corner of the world alone, there are four principles, reason, instinct, generation, vegetation, which are similar to each other, and are the causes of similar effects. What a number of other principles may we

naturally suppose in the immense extent and variety of the universe, could we travel from planet to planet, and from system to system, in order to examine each part of this mighty fabric? Any one of these four principles above mentioned, (and a hundred others which lie open to our conjecture,) may afford us a theory by which to judge of the origin of the world; and it is a palpable and egregious partiality to confine our view entirely to that principle by which our own minds operate. Were this principle more intelligible on that account, such a partiality might be somewhat excusable: But reason, in its internal fabric and structure, is really as little known to us as instinct or vegetation; and, perhaps, even that vague, indeterminate word, Nature, to which the vulgar refer every thing, is not at the bottom more inexplicable. The effects of these principles are all known to us from experience; but the principles themselves, and their manner of operation, are totally unknown; nor is it less intelligible, or less conformable to experience, to say, that the world arose by vegetation, from a seed shed by another world, than to say that it arose from a divine reason or contrivance, according to the sense in which CLEANTHES understands it.

But methinks, said DEMEA, if the world had a vegetative quality, and could sow the seeds of new worlds into the infinite chaos, this power would be still an additional argument for design in its author. For whence could arise so wonderful a faculty but from design? Or how can order spring from any thing which perceives not that order which it bestows?

You need only look around you, replied PHILO, to satisfy yourself with regard to this question. A tree bestows order and organisation on that tree which springs from it, without knowing the order; an animal in the same manner on its offspring; a bird on its nest; and instances of this kind are even more frequent in the world than those of order, which arise from reason and contrivance. 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.

But further, DEMEA; this objection which you urge can never be made use of by CLEANTHES, without renouncing a defence which he has already made against one of my objections. When I inquired concerning the cause of that supreme reason and intelligence into which he resolves every thing; he told me, that the impossibility of satisfying such inquiries could never be admitted as an objection in any species of philosophy. "We must stop somewhere", says he; "nor is it ever within the reach of human capacity to explain ultimate causes, or show the last connections of any objects. It is sufficient, if any steps, so far as we go, are supported by experience and observation." Now, that vegetation and generation, as well as reason, are experienced to be principles of order in nature, is undeniable. If I rest my system of cosmogony on the former, preferably to the latter, it is at my choice. The matter seems entirely arbitrary. And when CLEANTHES asks me what is the cause of my great vegetative or generative faculty, I am equally entitled to ask him the cause of his great reasoning principle. These questions we have agreed to forbear on both sides; and it is chiefly his interest on the present occasion to stick to this agreement. Judging by our limited and imperfect experience, generation has some privileges above reason: for we see every day the latter arise from the former, never the former from the latter.

Compare, I beseech you, the consequences on both sides. The world, say I, resembles an animal; therefore it is an animal, therefore it arose from generation. The steps, I confess, are wide; yet there is some small appearance of analogy in each step. The world, says CLEANTHES, resembles a machine; therefore it is a machine, therefore it arose from design. The steps are here equally wide, and the analogy less striking. And if he pretends to carry on my hypothesis a step further, and to infer design or reason from the great principle of generation, on which I insist; I may, with better authority, use the same freedom to push further his hypothesis, and infer a divine generation or theogony from his principle of reason. I have at least some faint shadow of experience, which is the utmost that can ever be attained in the present subject. Reason, in innumerable instances, is observed to arise from the principle of generation, and never to arise from any other principle.

HESIOD, and all the ancient mythologists, were so struck with this analogy, that they universally explained the origin of nature from an animal birth, and copulation. PLATO too, so far as he is intelligible, seems to have adopted some such notion in his TIMAEUS.

The BRAHMINS assert, that the world arose from an infinite spider, who spun this whole complicated mass from his bowels, and annihilates afterwards the whole or any part of it, by absorbing it again, and resolving it into his own essence. Here is a species of cosmogony, which appears to us ridiculous; because a spider is a little contemptible animal, whose operations we are never likely to take for a model of the whole universe. But still here is a new species of analogy, even in our globe. And were there a planet wholly inhabited by spiders, (which is very possible,) this inference would there appear as natural and irrefragable as that which in our planet ascribes the origin of all things to design and intelligence, as explained by CLEANTHES. Why an orderly system may not be spun from the belly as well as from the brain, it will be difficult for him to give a satisfactory reason.

I must confess, PHILO, replied CLEANTHES, that of all men living, the task which you have undertaken, of raising doubts and objections, suits you best, and seems, in a manner, natural and unavoidable to you. So great is your fertility of invention, that I am not ashamed to acknowledge myself unable, on a sudden, to solve regularly such out-of-the-way difficulties as you incessantly start upon me: though I clearly see, in general, their fallacy and error. And I question not, but you are yourself, at present, in the same case, and have not the solution so ready as the objection: while you must be sensible, that common sense and reason are entirely against you; and that such whimsies as you have delivered, may puzzle, but never can convince us.

PART 8

What you ascribe to the fertility of my invention, replied PHILO, is entirely owing to the nature of the subject. In subjects adapted to the narrow compass of human reason, there is commonly but one determination, which carries probability or conviction with it; and to a man of sound judgement, all other suppositions, but that one, appear entirely absurd and chimerical. But in such questions as the present, a hundred contradictory views may preserve a kind of imperfect analogy; and invention has here full scope to exert itself. Without any great effort of thought, I believe that I could, in an instant, propose other systems of cosmogony, which would have some faint appearance of truth, though it is a thousand, a million to one, if either yours or any one of mine be the true system.

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. Instead of supposing matter infinite, as EPICURUS did, let us suppose it finite. A finite number of particles is only susceptible of finite transpositions: and it must happen, in an eternal duration, that every possible order or position must be tried an infinite number of times. This world, therefore, with all its events, even the most minute, has before been produced and destroyed, and will again be produced and destroyed, without any bounds and limitations. No one, who has a conception of the powers of infinite, in comparison of finite, will ever scruple this determination.

But this supposes, said DEMEA, that matter can acquire motion, without any voluntary agent or first mover.

And where is the difficulty, replied PHILO, of that supposition? Every event, before experience, is equally difficult and incomprehensible; and every event, after experience, is equally easy and intelligible. Motion, in many instances, from gravity, from elasticity, from electricity, begins in matter, without any known voluntary agent: and to suppose always, in these cases, an unknown voluntary agent, is mere hypothesis; and hypothesis attended with no advantages. The beginning of motion in matter itself is as conceivable a priori as its communication from mind and intelligence.