

RSR Episode #6

Cosmological Arguments

Part 1 of 2

The Cosmological Argument claims that the very existence of the universe requires some causal explanation—and that God is the only possible cause. God must be the “first cause” or “necessary cause” of all existence. In other words, “God” is the only sensible answer to questions like “Where did it all come from?” and “Why does something exist rather than nothing?” The Cosmological Argument is still a popular argument for the existence of God today. —DMH



The First Three Ways

By Thomas Aquinas

Thomas Aquinas. *Summa Theologica*. Selection from Part 1, Question 2, Article 3. (<http://www.newadvent.org/summa/1002.htm>)

The Aristotelian Catholic philosopher Thomas Aquinas (1225-1275) developed these three versions of the First Cause Argument in his magnum opus *Summa Theologica*.

The existence of God can be proved in five ways...

The first and more manifest way is the argument from motion. It is certain, and evident to our senses, that in the world some things are in motion. Now whatever is in motion is put in motion by another, for nothing can be in motion except it is in potentiality to that towards which it is in motion; whereas a thing moves inasmuch as it is in act. For motion is nothing else than the reduction of something from potentiality to actuality. But nothing can be reduced from potentiality to actuality, except by something in a state of actuality. Thus that which is actually hot, as fire, makes wood, which is potentially hot, to be actually hot, and thereby moves and changes it. Now it is not possible that the same thing should be at once in actuality

and potentiality in the same respect, but only in different respects. For what is actually hot cannot simultaneously be potentially hot; but it is simultaneously potentially cold. It is therefore impossible that in the same respect and in the same way a thing should be both mover and moved, i.e. that it should move itself. Therefore, whatever is in motion must be put in motion by another. If that by which it is put in motion be itself put in motion, then this also must needs be put in motion by another, and that by another again. But this cannot go on to infinity, because then there would be no first mover, and, consequently, no other mover; seeing that subsequent movers move only inasmuch as they are put in motion by the first mover; as the staff moves only because it is put in motion by the hand. Therefore it is necessary to arrive at a first mover, put in motion by no other; and this everyone understands to be God.

The second way is from the nature of the efficient cause.¹ In the world of sense we find there is an order of efficient causes. There is no case known (neither is it, indeed, possible) in which a thing is found to be the efficient cause of itself; for so it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause, whether the intermediate cause be several, or only one. Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes; all of which is plainly false. Therefore it is necessary to admit a first efficient cause, to which everyone gives the name of God.

The third way is taken from possibility and necessity, and runs thus. We find in nature things that are possible to be and not to be, since they are found to be generated, and to corrupt, and consequently, they are possible to be and not to be. But it is impossible for these always to exist, for that which is possible not to be at some

¹ [An efficient cause is that which causes something else to come into being, e.g. John’s punch was the efficient cause of Mary’s bruise. – DMH]

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



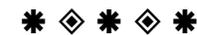
An Immutable Necessary Being By Samuel Clarke

Samuel Clarke. *Demonstration of the Being and Attributes of God*. Part II. 1705. (<http://ots.utoronto.ca/users/branemrys/Clarke.html>)

This later version of the First Cause Argument was published in 1705 by Samuel Clark, a follower of Isaac Newton.

There has existed from eternity some one unchangeable and independent being. For since something must needs have been from eternity; as hath been already proved, and is granted on all hands; either there has always existed one unchangeable and independent Being, from which all other beings that are or ever were in the universe, have received their original; or else there has been an infinite succession of changeable and dependent beings, produced one from another in an endless progression, without any original cause at all: which latter supposition is so very absurd, that though all atheism must in its account of most things (as shall be shown hereafter) terminate in it, yet I think very few atheists ever were so weak as openly and directly to defend it. For it is plainly impossible and con-

tradictory to itself. I shall not argue against it from the supposed impossibility of infinite succession, barely and absolutely considered in itself; for a reason which shall be mentioned hereafter: but, if we consider such an infinite progression, as one entire endless series of dependent beings; it is plain this whole series of beings can have no cause from without, of its existence; because in it are supposed to be included all things that are or ever were in the universe: and it is plain it can have no reason within itself, of its existence; because no one being in this infinite succession is supposed to be self-existent or necessary (which is the only ground or reason of existence of any thing, that can be imagined within the thing itself, as will presently more fully appear), but every one dependent on the foregoing: and where no part is necessary, it is manifest the whole cannot be necessary; absolute necessity of existence, not being an outward, relative, and accidental determination; but an inward and essential property of the nature of the thing which so exists. An infinite succession therefore of merely dependent beings, without any original independent cause; is a series of beings, that has neither necessity nor cause, nor any reason at all of its existence, neither within itself nor from without: that is, it is an express contradiction and impossibility; it is a supposing something to be caused, (because if granted in every one of its stages of succession, not to be necessary and from itself); and yet that in the whole it is caused absolutely by nothing: Which every man knows is a contradiction to be done in time; and because duration in this case makes no difference, it is equally a contradiction to suppose it done from eternity: And consequently there must on the contrary, of necessity have existed from eternity, some one immutable and independent Being: Which, what it is, remains in the next place to be inquired.



The Ultimate Origins of Things

By G.W. Leibniz

G. W. Leibniz . Selection from *The Ultimate Origin of Things*. 1697.

Translated by Jonathan Bennett.

(<http://www.earlymoderntexts.com/pdf/leibuo.pdf>)

This most complex version of the First Cause Argument by G. W. Leibniz was published in 1697.

Beyond the world, that is, beyond the collection of finite things, there is some one being who rules, not only as the soul is the ruler in me (or, to put it better, as the self is the ruler in my body), but also in a much higher way. For the one being who rules the universe doesn't just govern the world but also builds or makes it. He is above the world and outside it, so to speak, and therefore he is the ultimate reason for things. That follows because (1) he is the only extramundane thing, i.e. the only thing that exists out of the world; and (2) nothing in the world could be the ultimate reason for things.

I now explain that second premise. We can't find in any individual thing, or even in the entire collection and series of things, a sufficient reason why they exist. Suppose that a book on the elements of geometry has always existed, each copy made from an earlier one, with no first copy. We can explain any given copy of the book in terms of the previous book from which it was copied; but this won't ever lead us to a complete explanation, no matter how far back we go in the series of books. For we can always ask: (1) Why have there always been such books? (2) Why were these books written? (3) Why were they written in the way they were? The different states of the world are like that series of books: each state is in a way copied from the preceding state—though here the “copying” isn't an exact transcription, but happens in accordance with certain laws of change. And so, with the world as with the books, however far back we might go into earlier and earlier states we'll never find in them a complete explanation for why there is any world at all, and why the world is as it is.

It's not that in the backward search we'll reach a first state of the world, with no earlier one to explain it. So far as that is concerned, you are welcome to imagine that the world has always existed. But you are assuming only a succession of states, and no rea-

son for the world can be found in any one of them (or in any set of them, however large); so obviously the reason for the world must be found elsewhere. That means: out of the world, i.e. out of the totality of finite things, and so in something infinite and eternal. For even if eternal things don't yield causes, they give reasons. For a thing that lasts through time without changing, the reason is the nature or essence of the thing itself; and in a series of changing things (if we imagine that it goes back for ever) the reason is the superior strength of certain inclinations, as we shall soon see. (These reasons only incline; they don't necessitate with absolute or metaphysical necessity so that the contrary implies a contradiction.) From this it appears that even if we assume the past eternity of the world, we can't escape the ultimate and out-of-the-world reason for things, namely God.

The reasons for the world, therefore, lie hidden in something outside the world, something different from the chain of states or series of things that jointly constitute the world. And so we must move from (1) physical² or hypothetical necessity, which determines the later things in the world from the earlier to (2) something that is absolutely or metaphysically necessary, for which a reason can't be given. For the present world is not absolutely or metaphysically necessary, but only physically or hypothetically necessary. That is, given that the world is thus and so at one time, it follows that such and such events will occur later; and it is the “given” in this that makes it hypothetical. Therefore, since the ultimate ground must lie in something metaphysically necessary, and since the reason for an existing thing must come from something that actually exists, it follows that there must exist some one metaphysically necessary entity. It has to be different from the plurality of things, i.e. from the world, which we have shown not to be metaphysically necessary. What is it for a thing to be metaphysically necessary? It is for the thing's essence to include existence.

Now, to understand a little more clearly how temporal, contingent, or physical truths arise from eternal, essential or metaphysical ones, we must start by acknowledging this: Because something

² [In Leibniz's time, “physical” and its Latin and French equivalents did not mean “bodily” or “pertaining to matter,” but much more generally “pertaining to what actually contingently goes on in the real world.” —JB]

rather than nothing exists, there is a certain urge for existence—a claim to existence, so to speak—in possible things or in possibility or essence itself. In short, essence in and of itself strains towards existence. And it follows from this that each possible, that is, each thing that expresses essence or possible reality, strains towards existence; and these strainings are strong in proportion to the amount of essence or reality that the straining possibility contains. Or we could say: according to the amount of perfection it contains, for perfection is just the amount of essence.³

This makes it obvious that of the infinite combinations of possibilities and possible series, the one that exists is the one through which the most essence or possibility is brought into existence. A good rule to follow in practical affairs is: always aim to get the most out of the least, that is, try for the maximum effect at the minimum cost, so to speak. For example, in building on a particular plot of ground (the “cost”), construct the most pleasing building you can, with the rooms as numerous as the site can take and as elegant as possible. Applying this to our present context: given the temporal and spatial extent of the world—in short, its capacity or receptivity—fit into that as great a variety of kinds of thing as possible.

A different and perhaps better analogy is provided by certain games, in which all the places on the board are supposed to be filled in accordance with certain rules; towards the end of such a game a player may find that he has to use some trick if he is to fill certain places that he wants to fill. If he succeeds in filling them, but only by resorting special measures, he has achieved a maximal result but not with minimal means. In contrast with this, there is a certain procedure through which he can most easily fill the board, thus getting the same result but with minimal “cost.” Other examples of the power of “minimal cost”: if we are told “Draw a triangle,” with no other directions, we will draw an equilateral triangle; if we are told “Go from the lecture hall to the library,” without being told what route to take, we will choose the easiest or the shortest route. Similarly, given that

³ [Leibniz writes that the possibilities strain for existence *pari jure* = “with equal right.” He presumably means that all the strainings are governed by a single law or principle, the one aligning strength with amount of reality or perfection. The phrase occurs twice more, and will be left untranslated. —JB]

existence is to prevail over nonexistence, i.e. something is to exist rather than nothing, i.e. something is to pass from possibility to actuality, with nothing further than this being laid down, it follows that there would be as much as there possibly can be, given the capacity of time and space (that is, the capacity of the order of possible existence). In short, it is just like tiles arranged so as to get down as many as possible in a given area.

From this we can now understand in a wonderful way how the very origination of things involves a certain divine mathematics or metaphysical mechanism, and how the “maximum” of which I have spoken is determined. The case is like that in geometry, where the right angle is distinguished from all other angles; or like the case of a liquid placed in something of a different kind—specifically, held by something solid but flexible, like a rubber balloon—which forms itself into a sphere, the most capacious shape; or—the best analogy—like the situation in common mechanics where the struggling of many heavy bodies with one another finally generates the motion yielding the greatest descent over-all. For just as all possibles strain *pari jure* for existence in proportion to how much reality they contain, so too all heavy things strain *pari jure* to descend in proportion to how heavy they are; and just as the latter case yields the motion that contains as much descent of heavy things as is possible, the former case gives rise to a world in which the greatest number of possibles is produced.

So now we have physical necessity derived from metaphysical necessity. For even if the world isn’t metaphysically necessary, in the sense that its contrary implies a contradiction or a logical absurdity, it is physically necessary or determined, in the sense that its contrary implies imperfection or moral absurdity. And just as the source of what essences there are is possibility, so the source of what exists is perfection or degree of essence (through which the greatest number of things are compossible). This also makes it obvious how God, the author of the world, can be free even though everything happens determinately. It is because he acts from a principle of wisdom or perfection, which doesn’t make it necessary for him to act as he does but makes it certain that he will act in that way. It is only out of ignorance that one is in a state of indifference in which one might go this way and might go that; the wiser someone is, the more settled it is that he will do what is most perfect.

Someone may object: You compare a certain determining metaphysical mechanism with the physical mechanism of heavy bodies; it's a neat-looking comparison, but it doesn't work. The trouble is that the effortful heavy bodies really exist, whereas possibilities or essences before anything exists—or rather outside of existence—are imaginary or fictional, so it's no use looking to them for a reason for existence. I reply that those essences are not fictitious, nor are the eternal truths that involve them. On the contrary, they exist in a certain realm (so to speak) of ideas, namely, in God who is the source of every essence and of the existence of everything else. That there seem to be grounds for what I am saying here is shown by the sheer fact that the actual series of things exists. The argument goes as follows: The reason why anything exists can't be found in the actual series of things, as I showed above; so The reason why anything exists must be sought in metaphysical necessities or in eternal truths, because there is nowhere else it can be found. But Existing things can't derive from anything but existing things, as I have already noted above. So Eternal truths must be existing things, and they have their existence in a certain absolute or metaphysically necessary subject, i.e. in God, through whom things that would otherwise be imaginary are realized, to use a barbaric but graphic expression.

And indeed we discover that everything in the world takes place in accordance with laws that are eternally true, laws that are not merely geometrical, that is, in accordance with material necessities, but also metaphysical, that is, in accordance with formal reasons. This is true not only in very general terms, in the reason I have given why the world exists rather than not, and why it exists this way rather than some other way (which has to be sought in the straining of possibles towards existence), but also down at the level of particular events. In these we see how wonderfully the metaphysical laws of cause, power and action take their place in the whole of nature, and we see that these metaphysical laws prevail over the purely geometrical laws of matter. As I found to my great surprise in explaining the laws of motion, this is so true that I finally had to abandon the physics that I had defended in my youth, when I was more of a materialist, as I have explained at greater length elsewhere.⁴

⁴ [Leibniz describes that physics as “the law of the geometrical composition of conatus.” That last word—literally meaning “trying” or

So there we have it: the rock-bottom reason for the reality of both essences and existences lies in one thing, which must be greater than the world, be higher than the world, and have existed before the world did; since it is what brings it about not only that the things that make up the world have existence, but also that possibilities have their own reality. It is because of this thing that there are humans, and there is humanity, with this considered as an essence, a possibility, a possible-way-of-being. Moreover, it has to be a single source, because of how all these things and possibilities are interconnected. It is obvious also that things continuously flow from this source: they have been and still are being produced by it. Why? Because if we attend only to the world as a going concern, it is not clear why one state of the world should lead to this subsequent state rather than to that one, and so for a full explanation we have to look outside the world. We also see now how it can be that God acts not only physically but freely, that he provides not only the efficient cause of things but the final cause, and that he is the reason not only for the greatness or power in the mechanism of the universe as now constituted but also for the goodness or wisdom in constituting it.



“striving”—is a technical term of his, standing for an element in any physical force (see his “Essay on Dynamics” section 2). The “geometrical” approach to it came from Descartes’s doctrine that there is nothing to matter except its extension, meaning that its only real properties are geometrical ones. —JB]