The Argument Against Eternity for God’s Existence
by Al-Ghazali, various excerpts (~1095-1096 AD)

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The Long Version
from The Incoherence of the Philosophers (Tahāfut al-Falāsifa) (~1095 AD)
translated by Sabih Ahmad Kamali (1963)

Problem I
Refutation of their belief in the eternity of the world

Details of the theory (of the eternity of the world):

The philosophers disagree among themselves as to the eternity of the world. But the majority of the philosophers—ancient as well as modern—agree upon its eternity, holding that it always coexisted with God (exalted be He) as His effect which was concurrent with Him in time—concurrent as an effect is with the cause, e.g., light with the Sun—and that God’s priority to the world is the priority of the cause to the effect—viz., priority in essence and rank, not in time. ... The consensus of opinion among the philosophers is that as a rule it is inconceivable that something which has a beginning in time should proceed from the eternal without there being any intermediary.

Exposition of their arguments:

If I were to relate all the arguments (advanced by the philosophers) and the counter-arguments which have been handed down to us, I should have to devote innumerable pages to the problem. But prolixity is no good. Let us, therefore, omit such of their arguments as tend towards arbitrary and fanciful reasoning; for any observer will find it easy to deal with them. Our attention should be confined to those (arguments) which really appeal to the mind. It is such arguments which could possibly shake the faith of the maturest thinkers. As regards weaker minds, their faith can be shaken by the flimsiest thing. ...

(1) In the first argument, they say:

The procession of a temporal (being) from an eternal (being) is absolutely impossible. For, if we suppose the Eternal at a stage when the world had not yet originated from Him, then the reason why it had not originated must have been that there was no determinant for its existence, and that the existence of the world was a possibility only. So, when later the world comes into existence, we must choose one of the two alternatives (to explain it)—
namely, either that the determinant has, or that it has not, emerged. If the determinant did not emerge, the world should still remain in the state of bare possibility, in which it was before. But if it has emerged, who is the originator of the determinant itself? And why does it come into being now, and did not do so before? ...

To elucidate the point, it may be said: ... Whence does [His] will originate? Why does it originate now? Why did it not originate before? Does it now originate from a source other than God? If there can be a temporal existent which has not been brought into existence by anyone, then the world itself should be such an existent, so as to be independent of the Creator. For what is the difference between one temporal existent and another?

So, if the origin of the world is ascribed to God’s action, the question remains: Why now, and why not before? Was it due to the absence of means, or power, or purpose, or nature? If so, the transition from this stage to that of existence will revive the difficulty we had to face at the outset. And if it is said to have been due to the absence of will, then one act of will will stand in need of another, and so on ad infinitum. From this it is absolutely clear that the procession of the temporal from the eternal is impossible, unless there were a change in the eternal in respect of power, or means, or time, or nature. And it is impossible to suppose a change in the states of the eternal. For as a temporal event, that change would be like any other change (in non-eternal beings). Therefore (in case of the eternal), change of any kind whatsoever is impossible. And now that the world has been proved (always) to have existed, and the impossibility of its beginning in time has been shown, it follows that the world is eternal.

This is their most clever argument. ...

Firstly, it may be said:

How will you disprove one who says that the world came into being because of the eternal will which demanded its existence at the time at which it actually came into existence, and which demanded the non-existence (of the world) to last as long as it lasted, and (demanded) the existence to begin where it actually began? So, on this view, existence of the world was not an object of the eternal will, before the world actually existed; hence its non-actualisation. And it was an object of the will at the time when it actualised. What can prevent us from believing such a thing, and what is the contradiction involved in it?
If it is said:

The contradiction involved here is self-evident. For that which originates in time is an effect or a product. And just as it is impossible for an originated thing to be uncaused, so it is impossible for the cause to fail to produce its effect when all the conditions and factors requisite for the causal operation are complete and nothing else remains to be awaited. The existence, of the effect is necessary, when the cause is operative, and all causal conditions are complete. The postponement of the effect is as impossible as the existence of a temporal but uncaused thing.

Now, before the existence of the world, the Willer existed: the will existed, and the relation of the will to its object existed. The Willer did not have to make a new appearance: nor did the will emerge as a new acquisition, nor did it acquire a new relation to its object. For anything of this kind would amount to change. How, then, did the object of will emerge as something new? And what prevented it from emerging before it actually did? The state of its new-emergence cannot be distinguished from the preceding states in respect of any thing or any factor or any state or any relation whatsoever; for all things remain as they were. If, in spite of all things remaining the same, the object of will is not produced at first, but comes into being later, the whole affair must be exceedingly contradictory. ...

For instance, if a man pronounces divorce to his wife ... the postponement of [their separation] is unintelligible, unless the enforcement of the divorce should be bound up with, say, the coming of the next day, or entering into the house. Only then will the divorce take effect at the time of the coming of the next day, or the entering into the house, and not immediately; for ... since the condition, i.e., the morrow or the entry, is not present at the moment, the effect must be held over until the absent condition should become present. So the effect, i.e., the enforcement of the divorce, will not appear unless a new factor, viz., the morrow or the entry, emerges. ...

Even in the case of morals, the object of our intention is not posterior to the intention, if the intention exists, and there is no hindrance. Therefore, with intention being coupled with power, and with all obstacles having been removed, it is unintelligible that the intended thing should be delayed. Such a thing is conceivable only in the case of inclination; for inclination by itself is not sufficient to bring about an action. For instance, the mere inclination to write does not produce writing, unless there emerges an intention, i.e., an inner agitation which as a new factor precedes an action.
So if the eternal will is to be likened to our intention, it is inconceivable that its object should be posterior to it. Unless there is a hindrance, there cannot be a gap between the intention and its object. It makes no sense to have an intention today that one would stand up tomorrow. One may only have an inclination to do so. But if the eternal will is like our inclination, it shall not by itself be sufficient to bring about the object of inclination. For it is indispensable that something else—viz., the inner agitation that is intention—should emerge to supplement inclination, so that the object of inclination may be produced. But the emergence of such a thing means a change in the Eternal.

And, then, the difficulty remains as it was. Namely, why does this agitation, or intention, or will, or whatever you may like to call it, originate now, and why did it not originate before? Thus, either one must posit a temporal event which is uncaused, or an infinite regress will follow.

The sum and substance of what has been said (by you) is this: That the Cause existed; that all the conditions of its efficiency were complete, so that nothing else remained to be awaited; that, in spite of all this, the origination of the effect was postponed over a length of time, the beginning of which cannot be imagined, and which could not be measured out even by millennia; and that eventually the effect made its appearance all of a sudden, without a new factor coming into operation, or a new condition being realised. And such a thing is intrinsically impossible.

The answer to the foregoing may be stated as follows:

How do you know the impossibility of ascribing the origin of something to an eternal will? ... All you have said so far only amounts to a suggestion of improbability, and to a comparison of the Divine will to our inclination or will. The comparison is false; for the eternal will does not resemble temporal intentions. And the mere suggestion of improbability, unsupported by an argument, is not enough.

If it is said:

We know by rational necessity that, if all the conditions for causal operation are complete, it is inconceivable that the cause should fail to produce the effect. He who admits the possibility of such a thing challenges the necessity of reason.
we will answer:

... How will you disprove your opponents if they say:

"The eternity of the world is impossible. For it leads to the affirmation of spherical revolutions which are infinite in number, and consist of innumerable units. The fact is that these revolutions can be divided into one-sixth, or one-fourth, or a half. For instance, the sphere of the Sun completes one revolution in one year, while that of Saturn makes one in thirty years. Therefore, the revolutions of Saturn are one-thirtieth of those of the Sun. And the revolutions of Jupiter are one-twelfth of those of the Sun, for Jupiter completes one revolution in twelve years"?

You maintain that, in spite of the fact that the revolutions of Saturn are one-thirtieth of the Sun, they are equally infinite. Nay, you would assert that the revolutions of the Stellar Sphere, each of which takes thirty-six thousand years, are as infinite as the East-West movement of the Sun, which takes only a day and night. If someone says that this is an impossible thing, and that its impossibility is self-evident, how will you silence his criticism?

Even so, one might ask whether the number of these revolutions is odd or even, or both, or neither. If you say that it is both odd and even, or that it is neither odd nor even, it will be an evidently absurd thing. But if you say that it is even, the addition of one would make the even odd. How could it be that that which is infinite lacked just one? If you say that it is odd, again the addition of one would make the odd even. How could it be that that which is infinite lacked just one which would have made it even? It follows that you are bound to hold that the number is neither odd nor even.

If it is said:

The finite alone is described as odd or even. That which is infinite cannot be so described.

we will answer:

It there is totality which is composed of units, and which—as we saw above—can be divided into one-sixth, one-tenth, etc.; and if still it cannot be described as odd or even, then we must call it a self-evident absurdity, to prove which point we need not advance any rational argument. How will you answer this criticism?
If it is said:

Error lies in your words: “A totality composed of units.” As a matter of fact, the revolutions of the sphere are nonexistent. Those which took place in the past are gone; while those which will take place in the future are yet to be produced. The word “Totality” points to beings which are present here and now. But in this case no such being is to be found.

we will answer:

A number is bound to be either odd or even. It is impossible that it should fall outside these two categories—regardless of the fact whether the numbered thing is a being which exists, or has perished. For instance, if we suppose a number of horses, we are bound to believe that it is either an odd or an even number. It makes no difference whether we suppose the horses to be existing, or not to be existing. Or, if the horses perished after having existed, this judgment would not be changed.

Besides, we will say to them: Even according to your own principles, it is not impossible that there should be discrete individual existents, who are infinite in number, and describable each by itself. The souls of men whom death has separated from the body are such beings. And they are beings whose number is not described as odd or even. How will you disprove a man who says that such a thing is a self-evident absurdity? How can you show that this criticism is different from your own rejection, on grounds of rational necessity, of the explanation of the temporal origin of the world by reference to the eternal will? And this opinion about the souls is the one adopted by Ibn Sina; and perhaps it is Aristotle’s view, too.

If it is said:

The true opinion about the souls is the one held by Plato. Plato thought that the soul is eternal: that, although one by nature, it gets divided when it is related to bodies; and that, after its separation from bodies, it returns to its original character, and is reunified.

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1 Al-Ghazali is referring to the accusation that his opponent is committed to the existence of an actually infinite number of souls, since (on their view) human beings have been coming into existence for eternity, and souls are immortal. In Problem IV, he writes, “For, according to you, they do not perish. And the number of the souls existing after their separation from the body is infinite. A sperm is continually generated from a man, and a man from a sperm, and so on indefinitely. Then, the soul of every man who is dead has survived. And this soul is by number different from the soul of those who died before, or after, or together with, this man. If all the souls were by species one, then, according to you, there would exist at any time an unlimited number of souls.”
we will answer:

This is even more obnoxious; and there is greater reason why it should be rejected as contrary to rational necessity. Let us say: Is the soul of Zayd identical with that of 'Amr, or other than it? If it is identical, it would be a self-evident absurdity. For each one of the two is conscious of himself, knowing that he is not the same as any other. If the souls were the same, they would be equal in respect of cognitions which are the essential attributes of the souls, and which enter into all the relations of the soul. ...

If it is said:

... Did God have the power, before the creation of the world, to create it one year or two years earlier than he did? Since His power is infinite, it appears that He held Himself in patience, and did not create the world. But when at last He created it, are we to call the period of not-creating finite, or infinite? If you say that it was finite, it will follow that the being of the Creator was at first measurable in terms of finitude. But if you say that it was infinite, you will have ignored the fact that this period which contained infinite possibilities did come to an end.

we will answer:

We believe that periods (of time) and time (itself) are created. However, [we will explain this in more detail] when we deal with their second argument ...

(2) In their second argument on this question, the philosophers assert:

He who believes that the world is posterior to God, or that God is prior to the world, is bound to adopt one of two explanations: (a) He may mean by it that God is prior in essence, not in time, as one is prior to two. For one is prior to two by nature, although it is possible that both should co-exist in time. Or, God's priority will, on this view, be like the priority of the cause to the effect—e.g., the priority of the movement of a person to the movement of the shadow which follows him, or the priority of the movement of a hand to the movement of the ring on it, or the priority of the movement of a hand in water to the movement of the water. Both the movements in each one of these instances are simultaneous; and yet one is the cause, while the other is the effect. For it is said that the shadow moves because of the movement of the person; and water, because of the movement of the hand in water. And, in spite of the fact that the two movements are simultaneous, no one says that the person moves because of the movement of the shadow; or the
hand, because of the movement of the water. If this is what God's priority to the world means, it will be necessary that both should be either eternal or temporal. It will be impossible for one to be eternal, while the other is temporal.

But, if God's priority means (b) that He is prior to the world and time in time, not in essence, then it follows that, before the existence of the world and time, there was a time when the world did not exist. For in that (pre-existing) time, the world must have been non-existent, as its nonexistence preceded its existence. And, therefore, God must have preceded the world during a period which came to an end, but which had never begun. On this view, accordingly, there must be an infinite time before time. But that is self-contradictory. And for this reason it is impossible to believe in the origination of time. Finally, the eternity of time—i.e., the measure of motion—being necessary, it follows that the eternity of motion is also necessary. And hence the eternity of that which is in motion, and the perpetuity of whose motion makes time itself perpetual.

*Objection may be taken to the foregoing by saying:*

*Time did have a beginning; and it was created. And before time, there was no time whatsoever.* When we say "God is prior to the world and time," we mean that He was and the world was not; and that, afterwards, He was and the world was together with Him. And the meaning of our words: "... He was, and the world was not ... ," is limited to the presence of the Creator's being and the absence of the world's being. Similarly, the meaning of our words: "He was, and the world was together with Him," is limited to the presence of two beings. By His priority we mean that His being was the only being (before the existence of the world). ...

There is no distinction between temporal extension—which is described, in terms of its relations, as 'before' and 'after'—and spatial extension—which is described, in terms of its relations, as 'above' and 'below.' ...

The philosophers are all agreed that beyond the world there is neither occupied nor empty space. ... Let us use such words as 'beyond' or 'outside' instead. Thus, we will say: The world does have an inside and an outside. Now, is there any occupied or empty space outside the world? Their answer will be: "There is neither an occupied nor an empty space beyond the world. If you mean by the 'outside' (of the world) the uppermost surface of the world itself, the world has an 'outside.' But if you mean anything else, the world has no 'outside.'" Similarly, when we are asked whether the world has
a 'before,' we may answer: If that means whether the existence of the world has a beginning—i.e., one of its own limits at which it began—it has a 'before.' And this is analogous to the theory that the world has an 'outside,' if the 'outside' is interpreted to mean an uncovered limit or the boundary of surface. But if you mean by the 'before' something else, then the world has no 'before'—just as it is said not to have an 'outside,' if that means something over and above its own surface. If you say: "The commencement of an existence, which had no 'before,' is unintelligible," the rejoinder will be: The existence of a finite body, which has no 'outside,' is unintelligible. If you say: "Its 'outside' is its own surface whereby it is bounded off. It has nothing external to it which could be called its 'outside,'" we will say: In like manner, its 'before' is the beginning of its existence whereby it is limited (in that direction). It has nothing external to it which could be called its 'before.'

... Problem III

Of their dishonesty in saying that God is the agent and the maker of the world which is His action or product: and the explanation of the fact that these words have only a metaphorical, not real significance to them

... We say:

An agent is he from whom an action proceeds because of the will for action: by way of free choice, and alongside of the knowledge of what is willed. But in your view the world bears the same relation to God as an effect to its cause. So it follows from Him by way of necessary causation. And, therefore, it is not conceivable that God should have been able to avoid His action, even as the shadow is unavoidable to a person, or light to the Sun. Now, ... the lamp is the cause of illumination, and the Sun is the cause of light. But the agent is not called the agent merely because of his being a cause, but because he is a cause in a special manner, viz., in the manner of will and free choice. ... But in their view, the stone does have an action—namely, the inclination, or the gravitation, or the tending towards the Centre—and so does fire have an action—viz., production of heat. And they believe that that which proceeds from God is like all these things. But this is absurd.

If it is said:

We call every existent which is not a necessary being in itself, but owes its existence to another, an agendum: and call its cause the agent. We do not
care whether the cause is an agent by nature, or by will ... When we say 'action by nature,' the words 'by nature' are not contradictory to, or incompatible with, the word 'action.' On the contrary, they just describe a species of action. ...

we will answer:

This terminology is false. It is not proper to call every cause an agent, and every effect an agendum. ... If sometimes, inorganic Matter is called an agent, it is purely metaphorical. For instance, inorganic Matter is called an aspirant, or willer, e.g., a stone is said to incline, because it desires or seeks the Centre. But will or seeking is, something which is inconceivable, if not accompanied by the knowledge of the object willed or sought. And, therefore, it cannot conceivably be applied in the case of any thing other than an animal. ... A warning must be given here, for this is the place where these idiots have fallen into error. ...

If it is said:

What we mean by God's being the Agent is that He is the Cause of the existence of every other being: that He sustains the world: that if He had not been, the existence of the world would have been inconceivable; and that if His non-existence could be supposed, the world should cease to exist, as with the supposition of the non-existence of the Sun, light should cease to exist. So this is what we mean by His being the agent. If the opponent refuses to use the word 'action' in this case, let there be no dispute over words, once the meaning has been made clear.

we will answer:

... You have denied the reality of the meaning of an action, retaining the word itself in order to find favor with the Muslims. But religious obligations cannot be fulfilled merely by applying words which are devoid of meaning. Therefore, do assert that God has no action, thus making it clear that your belief is opposed to that of the Muslims. Do not dishonestly say that God is the maker of the world, and that the world is His Product. For you have not discarded this word, yet you have denied its reality. And the purpose of this problem was to expose this dishonesty. ...
Problem IV
To show their inability to prove the existence of the Creator of the world

We say:

All men can be divided into two classes:

(i) the class of the people of the truth. They hold that the world began in time; and they know by rational necessity that nothing which originates in time originates by itself, and that, therefore, it needs a creator. Therefore, their belief in the Creator is understandable.

(ii) the Materialists. They believe that the world, as it is, has always been. Therefore, they do not ascribe it to a creator. Their belief, too, is intelligible—although rational arguments may be advanced to refute it.

But the philosophers believe that the world is eternal. And still they would ascribe it to a creator. This theory is, therefore, even in its original formulation, self-contradictory. There is no need for a refutation of it.

If it is said:

When we say that the world has a creator, we do not mean thereby an agent who acts voluntarily, after not having acted, as we observe to be the case with so many kinds of agents, e.g., a tailor, or a weaver, or a builder. On the contrary, we mean thereby the cause of the world, whom we call the First Principle, in the sense that His own being is uncaused, while He is the cause of all other beings. So it is only in this sense that we call the First Principle the Creator. As regards the fact of the uncaused being of such an existent, it can presently be proved by a conclusive argument. The world, we will say, and all the beings therein are either uncaused, or have a cause. If they have a cause, this cause itself will either have a cause, or will be uncaused. And the same will be true of the cause of the cause. Therefore, (a) either the series will go on ad infinitum (which is impossible): or (b) it will come to an end at length. So the ultimate term will be the first cause, whose own being will be uncaused. Let us call this cause the First Principle. ...

Thus, what we wanted to show was that the existence of an uncaused being is an established fact—established by rational necessity and by general acceptance. It is only with respect to the attributes of such a being that opinions vary. So this is what we mean by the First Principle. ...
The conclusive demonstration of the impossibility of an infinite regress of causes is this: Each one of individual causes is either possible in itself, or necessary. If necessary, it will not need a cause. If possible, the Whole (of which it is apart) must be describable in terms of possibility. Now, all that is possible depends on a cause additional to itself. Therefore, the Whole must depend on a cause external to itself (and that is impossible).

we will answer:

The words 'possible' and 'necessary' are vague terms—unless 'necessary' is used for an uncaused being, and 'possible' for one which has a cause. If this is the meaning, we will ... say that each individual cause is possible in the sense that it has another cause which is additional to itself, and that the Whole is not possible—i.e., it has no cause additional or external to itself. If the word 'possible' means any thing other than the sense we have given to it, that meaning cannot be recognised.

If it is said:

This leads to the conclusion that a necessary being can be made of possible things. But the conclusion is absurd.

we will answer:

If by 'possible' and 'necessary' you mean what we have suggested, then this conclusion is exactly what we seek. And we do not admit that it is absurd. To call it absurd is like one's saying that something eternal made up of temporal events is impossible. To the philosophers, Time is eternal; whereas individual spherical revolutions are temporal. And each individual revolution has a beginning; whereas the aggregate of those revolutions has no beginning. Therefore, that which has no beginning is made of those which have. And the predicate of having a beginning in time is truly applicable to individual revolutions, but not to their aggregate. Similarly, therefore, (in the case of the causes and their aggregate) it will be said that each cause has a cause, but the aggregate of these causes has no cause. For all that can be truly said of the individuals cannot similarly be said of their aggregate. For instance, of each individual it can be said that it is one (of many), or that it is a fraction, or a part (of a whole). But no such thing can be said of the aggregate. ... Every temporal event originates after not having been—i.e., it has a beginning in time. But the philosophers would not admit that the aggregate of temporal events can have a beginning. ...
If it is said:

The revolutions of the sphere do not (all) exist at present. ... And that which has no existence cannot be called finite or infinite—unless its existence should be supposed in the imagination. ... For man often supposes these things in his imagination. But here it is the thing existing in reality, not in mind, which we are discussing. ...

The answer:

We present this difficulty to Ibn Sina and Farabi and other thinkers ... That is also the position adopted by Aristotle and some other authorities in the ancient world. However ... we will say: If we suppose that every day such an imperishable thing came into existence to last forever, obviously, by this time, there should have accumulated an infinite number of such beings. For even if a circular movement were transitory, still the appearance in it of an everlasting being should not be impossible. So by this supposition the difficulty is reinforced. ... And it will arise because they have posited spherical revolutions which are infinite in number.

[from Problem I]

If it is said:

In all your objections you have tried to meet difficulties by raising other difficulties. You have not tried to solve the difficulties which had been raised by the philosophers.

we will answer:

... In this book we have undertaken only an attack on their doctrines, and a refutation of their arguments. It is not our business to support a particular point of view. That is why we would not go beyond the purpose of this book. Nor would we try to find out arguments which might prove the temporal origin of the world; for the only thing we intended to do was to refute the philosophers' claim that its eternity is definitely known.

But, in order to affirm the true doctrine, we will—if Divine help enables us to do so—write a separate book, after having concluded this one. We will call that book "The Principles of Beliefs," and will be concerned therein with Affirmation, as in the present one we are concerned with Destruction. And God knows the best.
Fourth Introduction

Third Method: ... [W]e claim that our opponent’s position is impossible by showing that since it leads to absurdity, it is inevitably absurd. An example of this is our saying: “If our opponents claim that the revolutions of the celestial sphere are infinite is true, then the truth of the statement that the infinite has been concluded and completed necessarily follows; it is known that this necessary consequence is absurd; hence it necessarily follows that what leads to it, namely the doctrine of our opponent, is surely absurd.”² ...

First Proposition

The Existence of God (Exalted and Sanctified is He)

Its proof is that we say: “The occurrence of every occurrent has a cause; the world is an occurrent; it necessarily follows that it has a cause.” We mean by ‘the world’ all existents other than God (Exalted is He). And we mean by ‘all existents other than God’ all the bodies and their modes. ...

Let us return to its verification.

We have included in it two principles. Our opponent might deny them. We say to him: “Which principle do you dispute?” He might say: “I dispute your statement that every occurrent has a cause; how did you know this?” We say: “This principle must be affirmed; for it is a priori and necessary according to reason.” The one who is not moved by it is, perhaps, not moved because it is unclear to him what we intend by the term ‘occurrent’ and the term ‘cause’. If he understood them, his mind would necessarily believe that every occurrent has a cause. For we mean by ‘occurrent’ that which was nonexistent and then became existent. Thus we say: “Was its existence

² Al-Ghazali will invoke the same line of argumentation later in the book. It is clear that al-Ghazali believes that the concept of actual infinity is incoherent. He argues for this conclusion in many places, most notably in this book and in The Incoherence of the Philosophers. The problem he sees here that is implied by the concept of actual infinity is the completion of actually infinitely many terms. His point is that the concept of the actual infinite implies both (1) that it has no end and (2) that an infinity of terms has been completed. He sees these propositions as inconsistent with each other, because he takes (1) to imply that no infinite sequence has been completed.
before it existed impossible or contingent?³ It is false that it was impossible, since what is impossible can never exist. If it was contingent, then we mean by ‘contingent’ only that which is possible to exist and is possible not to exist. However, it was not a necessary existent, because its existence is not necessitated by its essence; for if its existence were necessitated by its essence, it would be necessary, not contingent. In fact, its existence was deprived of that which would give it preponderance over nonexistence—preponderance, which would change nonexistence into existence. If its nonexistence continues, then that is because there is nothing that gives preponderance to existence over nonexistence; for so long as there is nothing that gives this preponderance, existence does not come about. We do not intend by ‘a cause’ anything other than the giver of preponderance.

In summation, for a nonexistent whose nonexistence continues, its nonexistence would not change into existence unless something comes along that gives preponderance to the side of existence over the continuation of nonexistence. If the meanings of these terms are fixed in the mind, the intellect would have to accept this principle [i.e., that every occurrent has a cause]. This is the validation of this principle—a validation that is established by explaining the terms ‘occurrent’ and ‘cause’, not by erecting a proof for it.⁴

³ ‘Contingent’ is my translation here of mumkin. The word mumkin has two usages in the Islamic philosophical and theological literature. The first indicates that which is the opposite of impossible, that is, that whose existence is not impossible. The second indicates that whose existence and nonexistence are not impossible. The second usage is the more common and the one that Ibn Sina describes in al-Najat as the usage of the select, while he describes the first usage as that of the populace. ... It is typical (though by no means universal) to translate mumkin as ‘possible’ whether it is used in the first or second sense. However, given the way modalities are defined in the logical literature, ‘possible’ is the correct translation of mumkin when it is used in the first sense, and ‘contingent’ is the correct translation when it is used in the second sense. The notions of necessity, impossibility, and contingency are mutually exclusive and collectively exhaustive. We can say that an object is necessary when the supposition of its nonexistence is contradictory; an object is impossible when the supposition of its existence is contradictory, and an object is contingent when the suppositions of its existence and of its nonexistence are both not contradictory. We may define a possible object as an object the supposition of whose nonexistence is not contradictory. ...

⁴ The expression ‘not by erecting a proof for it’ is the choice of the Ankara and Jeddah editions. The Cairo edition has ‘as a proof for it’. I adopted the first reading. It seems to me that al-Ghazali is correct in saying that he need not give a proof showing that every occurrent has a cause, because this premise (principle) is an a priori one, and hence its truth follows immediately from the meaning of the terms invoked. It is clear that al-Ghazali does not distinguish, as Kant does, between analytic and a priori propositions. Kant defines a priori propositions as those that are known independent of experience (such as the propositions of mathematics) and a posteriori (or empirical) propositions as those that are known through experience (such as existential propositions about the objects of our experience). In addition, an analytic proposition is one whose predicate is contained in the concept of its subject (such as the proposition ‘All bodies are extended’) and a synthetic proposition is one whose predicate is not contained in the concept of its subject (such as the proposition ‘All bodies are heavy’). Kant famously asserts that there are synthetic a priori propositions. On Kant’s view, almost all the propositions of mathematics and metaphysics are synthetic a priori. An example that is of
It might be said: “How do you refute the one who disputes the second principle, which is your statement that the world is an occurrent?” We say that this principle is not a priori, but we establish it by a proof containing two other principles. We say: “If we say that the world is an occurrent, then we now intend by ‘the world’ only bodies and substances.” So we say: “No body is devoid of occurrents; whatever is not devoid of occurrents is an occurrent; it necessarily follows that every body is an occurrent.” About which of these two principles is there a dispute?

It might be said: “Why did you say that every body and extended substance is not devoid of occurrents?” We say: “Because it is not devoid of motion or rest, and they are occurrents.” ... No rational person would ever doubt that modes, such as aches, sicknesses, hunger, thirst, and other states truly exist in himself or that they actually occur. Similarly, if he observes the bodies of the world, he would not doubt the alteration of their states and that these alterations are occurrents. If an opponent disputes this, then it is senseless to engage his position; and if it is supposed that an opponent accepts what we have said, then it is an absurd supposition, assuming that the opponent is rational.

Particular interest to us here is the metaphysical proposition ‘Everything that happens has a cause’. This is just another version of al-Ghazali’s first premise ‘Every occurrent has a cause’. Kant says that the proposition is a priori because it cannot be known through experience, since its universality extends beyond the scope of all experiences and it makes an assertion about a necessary connection—namely, causation—which cannot be learned through experience. According to Kant, the proposition is not analytic, however, because the concept of cause is not included in the concept of that which happens. Hence the proposition is said to be synthetic a priori. Notice that this is contrary to al-Ghazali’s position. Al-Ghazali argues that the proposition is a priori and necessary precisely because its truth is established without recourse to experience but merely by understanding the concepts involved—namely, occurrent and cause —and seeing that the concept of the predicate ‘has a cause’ is contained in the concept of the subject ‘occurrent’. For to be an occurrent simply means to be existent after having been nonexistent, but the concept of becoming existent after having been nonexistent contains the concept of a giver of preponderance, which is the very meaning of a cause. This is why al-Ghazali says that he did not erect a proof for it. ...

5 In this book al-Ghazali almost always uses ‘substance’ to mean extended substance. When he uses ‘substance’ to include non-extended substance, he usually makes his usage explicit.

6 ... It is worth noting that there is a standard objection to the latter inference. If the world consists of infinitely many objects, then even if one understands by ‘occurrent’ that which has a beginning, and by ‘world’ the collection of all bodies and extended substances, and even if one accepts, too, that all bodies and extended substances are occurrents, it would not follow that the world itself had a beginning. For if the world consists of infinitely many objects, then it is possible that there is no point in time after which all those objects originated. Al-Ghazali, however, does not believe that actual infinities exist and he asserts, as we will see later, that the existents are finite.

7 The two opponents deny the premise stated at the beginning of the paragraph—namely, that every body and extended substance is not devoid of occurrents. The first opponent is a “disputing opponent” because he also disputes the import of the observation that the states of bodies change and that these changes are occurrents. Al-Ghazali thinks that this position denies the obvious and is unworthy of consideration. The second opponent is a “believing opponent” because he accepts the truth of the observation that bodies undergo change and that changes are occurrents. Al-Ghazali
Indeed, the opponents with respect to the occurrence of the world are the philosophers. They affirm that the bodies of the world ... move constantly, and the units of whose movements are occurrents but are perpetual and sequential, following each other eternally both anteriorly [i.e., eternally without a beginning] and posteriorly [i.e, eternally without an end] ... What the philosophers dispute is our statement that whatever is not devoid of occurrents is an occurrent.

Therefore there is no point in elaborating on this principle [i.e., that every body and extended substance is not devoid of occurrents]. ... Thus we have concluded the establishment of one of the two principles, which is that the world is not devoid of occurrents; for it is not devoid of motion and rest, and they are occurrents ...

It might be said: “The second principle remains, namely, your statement that whatever is not devoid of occurrents is an occurrent; what is its proof?” We say: “It is because if the world were anteriorly eternal yet not devoid of occurrents, then there would be occurrents that have no beginning, from which it would necessarily follow that the revolutions of the celestial spheres are infinite in number; and that is absurd, because it leads to absurdity, and what leads to absurdity is absurd.”

We show that three absurdities necessarily follow from it. First, if this were the case, then what is infinite would have passed, would have been followed by void, and would have concluded. There is no difference between saying that it has passed, that it has concluded, and that it has ended. Hence it would be necessary to say that the infinite has ended. The notion that the infinite ends or that it concludes and passes is a glaring absurdity.8

Second, if the revolutions of the celestial spheres are infinite, then their number is either even, odd, neither even nor odd, or both even and odd. These four cases are impossible, so what leads to them is impossible as well. It is impossible that a number is neither even nor odd, or is both even and odd. For an even number is that which can be divided into two equal parts, such as ten, and an odd number is that which cannot be divided into two equal parts, such as seven. Every number that is composed of units either can be divided into two equal parts or cannot. But to be described as
capable and incapable of such division or as lacking both is impossible. It is false that it is even. For an even number is not odd because it is short of one; hence if one is added to it, it becomes odd; but how can the infinite be short of one? It is impossible that it is odd. For an odd number becomes even by adding one; hence it is odd because it is short of one; but how can the infinite be short of one?

Third, it necessarily follows from it [i.e., the assertion that the revolutions of the celestial spheres are infinite] that there are two numbers, each of which is infinite, yet one is smaller than the other. It is impossible for an infinite to be smaller than an infinite, since a smaller number is that which is short of something: if [the missing something] is added to it, it becomes equal. Yet how can the infinite be short of something? The manifestation of this is that Saturn, according to them [i.e., the philosophers, who claim that the world is anteriorly eternal], revolves once every thirty years and the sun revolves once every year. Thus the number of Saturn’s revolutions is equal to one third of one tenth of the sun’s revolutions. For the sun revolves thirty times in thirty years and Saturn revolves once; and one to thirty is one third of one tenth. Furthermore, the revolutions of Saturn are infinite, and they are fewer than the revolutions of the sun, since it is necessarily known that one third of one tenth of a magnitude is smaller than the magnitude. The moon revolves twelve times in a year. Thus the number of the revolutions of the sun is equal to one half of one sixth of the revolutions of the moon. Although every one of these numbers is infinite, nevertheless some of them are smaller than others. This is clearly impossible.9

It might be said: “According to you, the objects of God’s power are infinite, and so are the objects of His knowledge; yet there are more objects of His knowledge than there are objects of His power, since the essence of the

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9 Here is a contemporary mathematical response to the second and third objections: these and similar objections are standard difficulties encountered when finite concepts are mistakenly applied to the infinite. For instance, even, odd, prime, and composite are all finite notions that are not applicable to infinite numbers. The same applies to relative magnitudes. In the case of finite magnitudes, the part is always smaller than the whole, but not so in the case of actual infinities. For example, the set of even numbers, {0, 2, 4, 6, …}, is a proper subset of the set of natural numbers, {0, 1, 2, 3, 4, …}, but they have demonstratively the same magnitude; the mapping “n → 2n” is a one-to-one correspondence between the two sets, which demonstrates that the two sets have the same number of members. It is interesting to note that Al-Ghazali is aware of this response. He considers it and dismisses it in *The Incoherence of the Philosophers*. In the First Discussion of the Incoherence, which contains his polemics against the philosophers’ doctrine of the anterior eternity of the world, he offers the second and third objections we find here. After describing the even-odd objection, he considers a possible rebuttal to his objection: “What is described as even or odd is the finite, and the infinite is not [so described]”, but he rejects it: “A number that is composed of units and has a sixth and a tenth, as previously mentioned, and that cannot then be described as even or odd is known not to exist by necessity without [need for] theoretical reflection.”
Eternal and His attributes are known to Him and so is the Existent whose existence is persistent, and none of these is an object of power.¹⁰ We say: “If we state that the objects of His power are infinite, we do not intend by it what we intend by our saying that the objects of His knowledge are infinite.” In fact, we intend by it that God (Exalted is He) has an attribute represented as power through which the origination of things can be produced, and this capacity to produce never ceases. Our statement that this capacity to produce never ceases does not imply the positing of actual objects, let alone describing them as finite or infinite. This mistake occurs for someone who looks at the meanings of expressions and sees the symmetry between the expressions ‘objects of knowledge’ and ‘objects of power’ with regard to their linguistic declension, and hence he thinks that what is intended by them is the same.¹¹ Far from it! There is no relation between them at all.

Moreover, our statement that the objects of knowledge are infinite is based on a secret that is contrary to what immediately comes to mind. For what immediately comes to mind is the positing of actual objects that are called “objects of knowledge” and are infinite; yet this is absurd. Indeed, the actual objects are the existents, which are finite. However, the explanation of this matter requires much elaboration. The difficulty has been resolved by uncovering what is meant by denying the finiteness of the objects of power. Hence there is no need to address the second case, namely, the objects of knowledge, in order to discredit the inference.¹²

¹⁰ The counterargument here is that al-Ghazali is equally committed to the existence of actual infinities and to their relative magnitudes. He must be committed to the claim that the things that God can do and the things that He knows are actually infinite. Furthermore, the objects of His knowledge (i.e., what is known to Him) are more than the objects of His power (i.e., what is within the reach of His power); for He knows His essence, attributes, and eternal existence, and none of these is something He can create. Hence, al-Ghazali is committed not only to the existence of two actual infinities but to one's being greater than the other. As we will see below, al-Ghazali will argue that there is confusion here: saying that the objects of God’s power are infinite does not imply that there is an infinity of actually existing objects that are the objects of His power.

¹¹ The Arabic terms [for] ‘objects of power’ and ‘objects of knowledge’ … share form, gender, number, and declension.

¹² The inference here is the inference of the opponent’s counterargument presented at the outset of the previous paragraph (see also note [10] above). The counterargument is aimed at showing that al-Ghazali is committed to the existence of two actual infinities (the objects of divine power and the objects of divine knowledge), one of which is greater than the other. Al-Ghazali says that by explaining the true meaning of the statement “The objects of God’s power are infinite,” we show that the inference of the opponent’s counterargument is not necessary (i.e., invalid). He does not discuss the meaning of the statement “The objects of God’s knowledge are infinite”; he maintains that explaining the meaning of the first statement should be adequate for invalidating the inference. His point is that just as we were able to show that there is a way of understanding the statement “The objects of God’s power are infinite” that does not commit us to the existence of infinitely many objects, there is also a way of understanding the corresponding statement regarding God’s knowledge that does not imply the existence of infinitely many objects. Thus neither statement justifies the opponent’s claim that an actual infinity exists.
The correctness of this [second] principle has been demonstrated using the third method of proof discussed in the Fourth Introduction of the book.\textsuperscript{13} At this stage you know the existence of the Maker, since it is established by the syllogism that we mentioned, which is our statements: “The world is an occurrent; every occurrent has a cause; hence the world has a cause.”\textsuperscript{14} ...

Second Proposition

God Is Eternal Anteriorly

We claim that the cause we have established for the existence of the world is eternal anteriorly. For if it were occurrent, it would require another cause, and so would this other cause; and either there would be an infinite regress, which is impossible, or the regress would necessarily arrive at something anteriorly eternal, at which it would terminate. This anteriorly eternal thing is what we seek and call “the Maker of the world.” It is inescapable to acknowledge necessarily His existence. We do not mean by our saying that He is eternal anteriorly anything other than that His existence is not preceded by nonexistence. The term ‘eternal anteriorly’ implies only the affirmation of an existent and the denial of a preceding nonexistence. Do not think that being eternal anteriorly is something additional to the essence of the anteriorly eternal. Otherwise you will be required to say that this thing is itself anteriorly eternal and that its anterior eternity is additional to it, and this would regress ad infinitum.

\textsuperscript{13} The principle that has been demonstrated is the premise that whatever is not devoid of occurrents is itself an occurrent, and the method of the demonstration is that of reductio ad absurdum. Al-Ghazali first argues that if this premise were false, that is, if there are anteriorly eternal things that are not devoid of occurrents, then the world, which is not devoid of occurrents, could be anteriorly eternal; but if the world could be anteriorly eternal and is not devoid of occurrents, then there could exist actual infinities. He then argues that the existence of actual infinities is absurd, because it leads to three absurdities. Hence, by reductio ad absurdum, the original (reductio) assumption, which asserts that there are anteriorly eternal things that are not devoid of occurrents, is false. This establishes the truth of the premise that whatever is not devoid of occurrents is itself an occurrent. ...

\textsuperscript{14} [The following translator’s note is from a section not included here.] Note that al-Ghazali’s task in \textit{The Incoherence} is largely destructive—rather than state what he actually believes, he presents counterexamples to show that the philosophers’ arguments are invalid—but [here] his task is constructive: he affirms doctrines and presents proofs for them.
The REALLY Short Version
from The Jerusalem Tract (Al-Risala Al-Qudsiyya) (~1096 AD)
translated by A.L. Tibawi (1965)

The First Pillar of the Faith is the Knowledge of the Essence of God and
Comprises Ten Fundamentals

(1) The first fundamental is the knowledge of His existence ... There is ... in
the nature of man and in the testimony of the Qur’an enough evidence to
make the necessity of [logical] proof superfluous. However, we wish to
produce such supporting proofs in emulation of the well-known among the
learned, as follows: It is self-evident to human reason that there must be a
cause for the origination of anything originated. Since the universe is
originated it follows that there was a cause for its origination.

Our statement that there must be a cause for the origination of anything
originated is clear, since everything originated is related to time which
human reason can assume to be early or late. The assignment of the
originated to a particular time, which is neither before nor after its own, is
necessarily dependent upon the one who so assigns it. Then the proof of
our statement that the universe is originated is that material objects in the
universe are either at rest or in motion, and since both rest and motion are
originated, it follows that what is subject to the originated is itself originated.

There are thus three propositions in this proof. The first is our statement
that material objects are either at rest or in motion. This statement is self-
evident and requires no mental reflection for its comprehension. For he who
can conceive a material object which is neither at rest nor in motion is both
obstinately ignorant and unwilling to follow the path of reason.

The second proposition is our statement that rest and motion are
originated. This is proved by their alternate occurrence, as is observable in
all material objects, those that can be seen as well as those that cannot. For
there can be nothing at rest which human reason does not decide that it is
capable of moving, and there can be nothing in motion which human reason
does not decide that it is capable of coming to a standstill. Of the two states
of rest and motion that which happens to occur at a time is originated,
because it did occur. The previous state [of an object whether at rest or in
motion] is also originated, for were its eternity proved, its non-existence
would be impossible (as we shall show in proving that the Creator, most
high and hallowed, is pre-existent and everlasting).
The third proposition is our statement that what is subject to the originated is itself originated. The proof is that were it not so, it would be necessary to assume the existence before everything originated of another so originated, and so on *ad infinitum*, so that unless all these originated things did come and pass, the turn of the one in question would never come. But this is impossible because there is no end to infinity.

Another proof is the revolutions of the celestial spheres. Were these revolutions infinite, their number would be either odd or even, or both odd and even, or neither odd nor even. But it is impossible that the number could be both odd and even, or neither odd nor even, for this would combine the positive with the negative, so that affirmation of the one would involve the negation of the other, and vice versa. Further, it is impossible for the number of revolutions to be even [only], since even becomes odd by the addition of one to it—and [behold] how the infinite stands in need of one! It is also impossible to be odd [only] since odd becomes even by the addition of one—and [behold] how the infinite stands in need of one! Finally, it is impossible for that number to be neither odd nor even, for this would mean that it is finite.

The sum of all this is that the universe is subject to origination, that it is therefore originated, that its actual origination is proved, and that its dependence upon the Creator is *ipso facto* comprehensible.

(2) The second fundamental is the knowledge that the Creator most high is pre-existent and eternal, that there is no beginning for His existence, that He is the beginning of everything, and that He [existed] before everything dead or alive. And here is the proof: Were He himself created and not pre-existent, His own coming into existence would have required a creator, and His creator another creator and so on *ad infinitum*, without ultimately leading to one preexistent, first creator who is the object [of our search], and Whom we called the Creator of the universe, its Initiator and its Contriver.