

**GUIDE 1:74**  
**THE SEVEN KALĀM ARGUMENTS FOR CREATION *EX NIHILO***

***INTRODUCTION***

There Is No Deductive Proof For Divine Creation. Chapters 74-76 summarize and review the Muslim (Kalām) theologians' arguments for the four doctrines that Maimonides says are necessary to religion:

1. There is a God;
2. He created the world from nothing;
3. He is one;
4. He is not corporeal.

Our chapter, Guide 1:74, is about the Kalām proof for God's existence, but it is also about creation *ex nihilo*, since their proof for the existence of God depends on their proof for creation. Chapter 1:75 will be about the Kalām arguments for divine unity. 1:76 contains their arguments for divine incorporeality.

Since monotheistic religion requires belief in the existence of God, 1:74 is the most important of those three chapters.

Maimonides agrees that we should establish our belief in God. But the Kalām based their proof of God's existence on the creation of the world. If they could show that it was created, then there must have been a Creator. But if it turned out that the world was not created, then there would be no Creator. If there really is no deductive argument for creation then the proof for God's existence would fall flat.

Maimonides must prevent this consequence, even if he has to destroy Islamic theology to do it.

Maimonides will solve the problem by decoupling divine existence from creation (in Part Two of the Guide). He will argue that we must secure our belief in God first, because it is the essential religious demand. By putting proof of creation first, the Kalām exalted the lower over the higher, leaving the belief in God on a tottering foundation.

The so-called Jewish Kalām also made their proof for the existence of God depend on creation. Maimonides never mentions them, but they cannot be far from his thoughts. For example, R. Bakhya Ibn Pakuda, *Hovot Ha-Levavot (Duties of the Heart)* says, "One must first investigate whether or not the world has a Creator... Who created it and brought it into existence from nonexistence."

First, prove that the world was created, then show that God must have created it. The fundamental flaw is that we cannot prove that the world was created.

The strong, though unarticulated, implication of this chapter was that there is no deductive proof for the divine creation of the world *ex nihilo*.

Maimonides turned the argument back to where it should have been: first establish the existence of God, talk about the world later. We will briefly address, at the end of this essay, the modern impact of this conclusion.

Maimonides had his own argument for the existence of God, satisfactory to both sides, Athens and Jerusalem, which did not entirely depend on the premise of creation. He argued that the world was either created or eternal. If created, there must have been a Creator. If it is eternal, Aristotle shows that there must be an unmoved mover, the original cause of the untraversable chain of causes for the continued rotation of the eternal outer sphere. In either case, God exists. It was a good argument for his time, as we will explain.

In our chapter, Maimonides portrayed the weakness of each Kalām argument for creation, not because he doubted creation, but because the very weakness of those arguments undermined religion’s best case for the respectability of creation. (On his commitment to creation *de novo* and *ex nihilo*, see Kenneth Seeskin, *Maimonides on the Origin of the World*, Cambridge, 2006).

## RHETORIC AND SOPHISTRY

We learn from Aristotle that there are three kinds of arguments: deductive arguments, rhetorical arguments, and sophistical arguments. Maimonides explains that deductive arguments are syllogisms constructed with at least two true propositions. Rhetorical arguments contain two propositions, at least one of which is based on convention or tradition. A sophistical argument is a deceptive argument where at least one proposition is false. (*Treatise on Logic* 8:3).

Since the Kalām case for the existence of God depended entirely on their proof for creation, they had to deploy the most powerful deductive arguments available to refute Aristotelian eternalism.

But we have no deductive proof for the creation of the world. This is a limitation on human knowledge. No one knew what was above the lunar sphere.

The best anyone could do was to hazard persuasive rhetorical arguments about the nature of the cosmos. But by dressing their rhetorical arguments in deductive cloth, the Kalām paradoxically reduced those “deductive” arguments to the sophistical level, the lowest of the three types of argument. They then hoped to “startle” and “astonish” (*l’havhil...u’l’hafliā*) their listeners and readers with rhythm and rhyme, prolixity and dogmatic diatribe.

By contrast, you could never accuse the master logician, Aristotle, of writing poetry or exciting prose.

Maimonides signals that, at best, the Kalām had only rhetorical arguments, in the first sentence of 1:74: “In this chapter I shall include accounts, *akhbaar*, of the proofs, *dala’il*, of the Mutakallimun.”

The Arabic *akhbaar* was the classic term for narrations of Muhammad’s life. *Dala’il* are signs or indications, including proofs, and is part of the Arabic title of the Guide of the Perplexed, *Dalaalat al-Ha’irin*.

The subtle point was that despite the Kalām assertion that these arguments were deductive, they were only rhetorical or persuasive accounts and narrations. *To premise the existence of God on a merely rhetorical proof for the creation of the world is to premise His existence on a base easily shaken.*

Maimonides tells us that when we boil down their massive works, the Kalām had seven arguments for creation *ex nihilo*. H.A.Wolfson has given names to these seven arguments (but not in this order: *Philosophy of the Kalām*, Harvard 1976, p. 374, and see pp. 373-455):

1. Argument from the Analogy of Things in the World;
2. Argument from the Impossibility of an Infinite by Succession;
3. Argument from the Aggregation and Segregation of Atoms;
4. Argument from the Createdness of the Accidents of the Component Parts of the World;
5. Argument from Particularization;
6. Argument from Preponderation;
7. Argument from Immortal Souls.

We can reduce the seven arguments to three types:

- I. The argument from the analogy with the things of this world (Arguments 1 and 4);
- II. The argument from Particularization (Arguments 3, 5, and 6);
- III. The argument against an infinite by succession (Arguments 2 and 7).

The classical Hebrew term for the Aristotelian concept that the universe is eternal was *kadmut ha-olam*. It literally means the temporal precedence of the world, i.e., that it comes before God. Michael Schwarz explains the phrase *kadmut ha-olam* as: “the belief that the universe is eternal and without beginning, existing forever, uncreated” (Note 3, to Guide 1:69, vol. 1, p. 177, my translation).

### **I. ANALOGY WITH THINGS OF THIS WORLD (Arguments 1 and 4)**

The Kalām’s first and fourth arguments are the most common but least persuasive proofs that God created the world.

*The First Argument.* All the things we see in the world have been created. These cups, my brother, this office, etc., have not existed forever. Since they are not eternal, they must have been created, and nothing creates itself. Since everything we see was created, the world must also have been created.

Maimonides cites a slightly stronger version of the argument: Reuven was originally a drop of sperm. This drop progressed from stage to stage, from amnion to fetus to embryo to infant (Kafih, note 6\*, *ad loc.*), but could not have changed itself. There must be an external agent of change. By analogy, the same should hold true for the universe as a whole.

This is an analogy, not a deductive argument: it was, at best, a rhetorical argument. Its basic weakness is its assumption that a law discovered in one thing is applicable to all (...*sh'kol ikaron sh'nmtza ba-guf m'suyam, tzarikh l'hakhilo al kol guf*).

Moreover, the Kalām argument missed its mark. Neither version proves the need for creation *ex nihilo*, only for an agent of change. Aristotle’s unmoved mover of the eternally moving cosmos could be this divine agent. Plato’s demiurge, the craftsman who works on unformed hylic matter, would also fit this description.

The analogical argument is ancient. It is based on the axiom that nothing creates itself. In the *Timaeus*, Plato argues, “Now everything that becomes or is created must of necessity be created by someone, for without a cause nothing can be created” (28a, p. 12, Jowett trans.). H. A. Wolfson demurred, calling this “an unproved assumption” (*Kalām*, p. 382). It may be true in our world, but how would we know that it’s universally true?

Maimonides observes that “A palm-tree or any other object might equally be selected to illustrate this idea: the whole universe, they argue, is analogous to these instances—thus you see how they (the Kalām) believe that a law discovered in one thing may equally be applied to everything.”

*The Fourth Argument.* “The Argument from the Createdness of the Accidents of the Component Parts of the World” was the most sophisticated version of the analogical argument. Its complexity masked its weakness.

Here is the Fourth Argument. According to the Kalām, no atom is without its accident. We do not see an atom before it has its accident, or an accident before it has its atom. Atoms and accidents actualize when they link with one another. The Kalām’s accidents do not exist for more than two time-atoms (Guide 1:73, Proposition VI). Since the accidents have only momentary duration, they cannot be eternal. If the accidents are not eternal then they must have been created. The atoms must also be created, for anything that combines with a created object

and cannot exist without it must itself be created (*l'fi sh'kol ha-tzimud l'mekhudashim, v'aino mishtakhrer mehem harei mekhudash*). This is because created and eternal things are opposites, and opposites cannot join as one (Shem Tov, 126a). But they do join as one. Since they do join as one, the atoms, like their accidents, could not be eternal. They both must have been created, or they could not link together.

We are now asked to apply the analogy just as in the First Argument: since the atoms and their accidents are created, all substances must be created; therefore, the world was created. This is especially so since the world is a whole, comprised of substances, that is, atoms, and the whole does not precede its parts. If the parts were created then the whole would also have been created. There must be a Creator since they did not create themselves.

The Kalām judged this their best argument: “This argument is considered by them the best and safest, and has been accepted by many of them as strict proof.” Nevertheless, the philosophers recognized its wheezing mechanism through the rhetorical camouflage (*sh'hen drushot l'ma sh'lo ne'elam m'eini baalei ha-iyun*). Averroes called the argument logically unintelligible: “The method which they followed in proving of the atom...is a method so difficult that it eludes many people trained in the art of logical reasoning” (*Kashf*, II:19-21, in Wolfson, *Kalām*, 401).

This argument collapses under Maimonides' powerful blows.

It flows from the four propositions that he demolished in the previous chapter. Proposition IV was the contention that an atom must have accidental characteristics. Proposition V said that each atom is completely furnished with its accidents and could not exist without them. Proposition VI was that accidents do not continue in existence during two time-atoms. Finally, Proposition VIII held that all existing things consist of atoms and of accidents, and the physical form of a thing is likewise an accident.

Playing devil's advocate, Maimonides takes up the philosophers' case against the Kalām theorists. First, the Aristotelians were not atomists. Second, the original Greek atomism required no Creator. Third, even if created, the accidents would just recycle forever in eternal uncreated matter, irrespective of whether that matter was hylic or atomic.

The Aristotelian opponent avoided the Kalām argument because he never accepted the atomic theory. His whole was not just made of atoms and accidents. It contained incorporeal things, including potential things. Unlike the Mutakallimun, the philosopher conceives of unformed matter, i.e., matter with no accidents attached. He would argue that even if the things we see in the world are created, this does not prove that things we do not see were created, such as this unformed matter or the invisible heavenly spheres.

The philosopher could admit, for the sake of argument, that atoms exist, but only in the original Democritean sense that those atoms are eternal and uncreated (*v'im yomar adam, v'shema ha-etzem aino mekhudash...*). He could even admit that the accidents were created, but he would assert that they follow upon each other successively and eternally, in a cycle (*v'toan sh'hem nirdafim al bilti mekhudash ba'sibuv*). The Kalām would argue that such a successive infinite cycle would be an impossible untraversable infinite, but the philosophers held that such an infinite was possible, as we explain later in this essay (“The Kalām Arguments against the Successive Infinite”).

This “cycle” (*sibuv*) alludes to the notorious doctrine of the Eternal Return of the Same. The idea was that with a finite number of forms and an infinite quantity of matter, the forms must cycle through repeatedly in eternal time. Everything that happened before will happen again. (see Shem Tov, *ad loc* to 126b, and Friedlander, 347, note 2. Also my discussion “The Eternal Recurrence” in Guide 1:72).

This Stoic teaching obliterated the Kalām analogy from the createdness of accidents, simply by making it irrelevant. The philosopher could argue that even if our world were created, it would repeat itself forever in an eternal uncreated universe of such worlds.

The Uncreated Spheres. Maimonides sharpens his critique. The philosophers could grant, *arguendo*, that accidents must be created. But they would make one particular exception, the unlimited circular motion of the spheres. Nothing suggests that they were created.

Circular motion is not subject to the limits of straight-line motion. Recall that in the Aristotelian theory of *proper place* all four material (sublunar) elements forced out of their places must return to their places in a straight line and stop (above for air, below for earth). The elements must stop, at least at the edge of the Aristotelian/Ptolemaic outer sphere, beyond which nothing passes. But the philosophers denied that this limit of motion applied to the spheres themselves. They never stop. There is no edge at which they must halt.

The spheres were not comprised of material elements, but, rather, of the fifth element, quintessence (aether), whose motion is eternally circular. They do not return to their “place” in a straight line because they are always in place, i.e., their place is the place of their rotation.

Since the spheres were not compounded from either the four material elements or from atoms, they were not subject to corruption and dissolution, like every other compound of atoms or elements. Therefore, there was no reason to suppose that the spheres were, like earthly substances, created.

If the Kalām were serious about their analogical argument, Maimonides reasons, they should have devoted special effort to the investigation of the problem of the sphere, as well as to the problem of the eternal succession of forms in matter. Rather than do this they merely rejected the existence of both.

## **II. PARTICULARIZATION (Arguments 3, 5 and 6)**

“Faith, here’s an equivocator, that could swear in both the scales against either scale; who committed treason enough for God’s sake, yet could not equivocate to heaven.” (Macbeth, Act 2, Scene 3)

Introduction: the Kalām equivocation on the meaning of “possible existence.” Arguments Three, Five and Six go by different names but each uses the same basic method of Particularization. The argument rests on Kalām Proposition X of the last chapter, that anything imaginable is possible. Since any possible thing could be both the way it is and another imaginable possible way, what made it the way it is? There must be a *particularizer* to determine that it would be this way and not another imaginable way. The sun is round but could equally possibly be square; therefore, a particularizer must have determined that it should be round.

We need to mention several points at the outset. The Kalām argument that there is a Particularizer, God, does not prove that He creates the world *ex nihilo*. These arguments are useful in establishing the first doctrine of religion, that there is a God, but they do not prove creation, which was their declared purpose.

These arguments commit the *fallacy of equivocation*, since we can understand them in two different ways. The first time this occurs is with the term “particularize” itself. Maimonides writes that the Kalām mashed together terms, each of which had a specific meaning:

“For there is no difference which of the following expressions is used: to determine (particularize), to make, to create, to produce, to originate, or to intend (*m'yakhad o osei o borei o mamtzi o m'hadash o m'khevan*): these verbs have all one and the same meaning [for the Kalām].”

The Kalām held that since anything could “possibly exist” in any imaginable way, a particularizer must have chosen how it would exist, as, for instance, that the sun would be round rather than square. But philosophers understood the term “possible existence” differently from the Kalām:

“Our opponent (Aristotle) who assumes the eternity of the Universe, employs the term ‘possible,’ and says, ‘the existence of the Universe is possible’ in a sense different from that in which the Mutakallem applies it...”

The philosophers did not agree that things could “possibly” be different.

When the Avicennan Aristotelians spoke of the “possible,” they meant it to be the antithesis of the “necessary.” None of the things of this world exists necessarily. God is the only necessary existent. The things of the world are, therefore, only possibly existent in their relation to God. In other words, when the philosophers called the things of the world “possible existences” they meant that the things of the world were not God, the only necessary existence. They did not mean that those things could manifest themselves in any way imaginable. It only meant that their existence was not, like God’s existence, necessary.

Maimonides agreed with the Avicennans that God confers actual existence on everything other than Himself. Their existence was only possible because of Him (Mishneh Torah 1:1). He says that this means that God is the “form of the world,” for without Him it could not continue to exist.

This is quite different from the Kalām assertion that God is the efficient cause who particularizes every accident in every atom every second. In the philosophers’ version, God actualized substances by causing the spheres to emanate form upon their unformed matter. But the Kalām rejected the existence of such indirect causation.

All of this discussion about “possibility” is really about why anything other than God can exist, not about the specific shape its actual existence takes.

To come back to our example, for the philosophers, the sun’s “possibility of existence” was not that it could be another shape, but that it could *be* at all (Shem Tov, 127b). The actualization of the possibility of its existence required the will of God. The sun was necessarily existent with respect to other existent beings, while remaining only a possible existence with respect to God.

R. Efodi comments, “When the Mutakallem says of the universe as a whole that it could possibly exist or not exist, the philosopher replies that this is false, arguing that the universe exists necessarily from God,” *sh’hu sheker, ki ha-olam b’klalo, yomar ha-filosof, sh’hu m’khuyav mimenu ytalei*. R. Crescas added that, according to the philosophers, a thing is “necessary with respect to its cause, possible with respect to itself,” *v’hi m’khuyav b’bekhinat sibato, v’efshar b’bekhinat atzmo*. (Efodi and Crescas, *ad loc.*, 127b, my translation).

Thus, Maimonides says that the Kalām “err or cause others to err” when they assert of the universe that it is equally possible of existence or nonexistence (*v’ha-taa otanu o taa b’inyan... ‘ha-olam efshari ha-mitziot’*). The difference between God and the world is that the necessity of His existence is in Himself, while the necessity of the world’s existence is due to another (Shem Tov, 127b). This would be true both for the Avicennan philosophers and for Judaism.

*The Third Argument.* “The Argument from the Aggregation and Segregation of Atoms,” applies Particularization to the Kalām atomic theory. Substances only come about because two or more atoms clump together. Clumping or separation is possible, as is the possibility that they will clump, unclump and then clump again. Since these likelihoods are equally possible, a particularizer must have made each choice.

The key to the Kalām argument was their claim that the prior natures of things had no bearing on their ultimate manifestation. There is nothing in the prior nature of a group of atoms (and no “form” as such) that requires that they must cluster. Only an external force, Allah, determines their final state.

It is another version of the argument from design. Until they combine, the individual atoms have no “accidental” properties, and, therefore, no actual existence. The atoms must have a combiner. By extension, the world, which is made of atoms, requires a combiner. The philosophers rejected the entire argument.

The whole trend of thought begs the question of what the nature of matter is. The philosophers argued for some kind of pre-existent eternal matter. In the Democritean/Epicurean version of atomism, the uncreated atoms clump and unclump *eternally*, with mere chance, not God, as their “particularizer.” Nothing in the original theory of atomism required the existence of a divine assembler.

The “proof” from clumping and unclumping turns out to be just as good for atheism as the Kalām imagined it to be for monotheism.

The Fifth Argument. The “Argument from Particularization,” moves from the atoms of things to their particular appearances. Things appear a certain way, that is, a certain color, shape, size, place, time, and so on. Since they could imaginably take another equally possible aspect, a Particularizer must have determined how they would be. In the example of flowers, there was nothing in the prior nature of a patch of flowers, or in their particular soil, which makes one red and another yellow. God could only have made that choice.

The philosophers would retort that things could not have been different from the way they are. Nature does nothing in vain, *natura nihil agit frustra*.

Maimonides would not have agreed with the flower example. In Guide 1:73, Proposition X, he shows that the distinct characteristics of iron and butter flow from their specific natural compounds of form and matter. It would follow that something about their composition must cause the color differentiation of the flowers. He did not, of course, know about differentiation at the genetic level.

Volitional eternalism. Nonetheless, Maimonides noticed that some recent philosophers thought that God willed the particularities of things in the eternal universe. This represents a change, since eternalists had hitherto held that things flowed necessarily from a volitionless supreme being. He, therefore, says “The theory of Particularization is...adopted by some of those who assume the eternity of the Universe.”

Maimonides supports this in Guide 2:21: “Some of the recent philosophers who adhere to the theory of the Eternity of the Universe hold that God *produces* the Universe, that He by His will designs and determines its existence and form: they reject, however, the theory that this act took place at one certain time, and *assume that this always has been the case, and will always be so.*”

In other words, some philosophers could accept the Fifth Argument *in toto*, up to and including a divine volitional particularizer, but still reject creation.

Thus, the Kalām Particularization theory once again failed to unseat their eternalist adversaries.

(Perhaps, by ‘recent philosophers’ he meant Alfarabi and R. Shlomo Ibn Gabirol; H. A. Wolfson, *Studies* vol. 1, 210 – 211; Sara Pessin, “Solomon Ibn Gabirol [Avicebron]” in *Stanford Encyclopedia of Philosophy* online. Perhaps also Averroes, who says of God’s atemporal will acting upon an eternal universe: “the knowledge of the Creator acts on existents, and the existents receive the activities of His knowledge,” at 269, 446:8, *Tahafut al Tahafut*, trans. Van Den Bergh. Cf. R. Yehuda Halevi, *Kuzari*, Hirschfeld, ch. 5:18, Axiom 9, p. 278)

Maimonides also saw something useful in this argument: “In conclusion, I consider this to be the best argument: and in another part I shall more fully acquaint you with the opinion I have formed concerning the theory of Particularization.”

Maimonides’ Own Version of the Argument of Particularization. Maimonides returns to this “best argument” in Guide 2:19, where he uses Particularization as a rhetorical weapon against the philosophic eternalists. But he differentiates himself from the Mutakallimun who use the argument:

“Do not think that they have also said what I shall say. On the other hand, there is no doubt that they wished what I wish.... They have established Particularization, by means of their premises, which you already know [from Guide 1:73]. I, on the other hand, shall establish Particularization regarding the things to which it ought to be established, by means of philosophic premises derived from the nature of that which exists.” (Guide 2:19, Pines translation, p. 303.)

The difference is that he first admits that there are no deductive proofs on either side of the creation/eternity question. Maimonides explains that even Aristotle admitted he had no proof of the eternity of the universe. Only rhetorical arguments exist.

Having laid this groundwork, he denies that the stars and the spheres have prior natures that could explain their anomalies, which only God could have chosen.

“What determined that the one small part [of the heavenly sphere] should have ten stars, and the other portion should be without any star? and the whole body of the sphere being uniform throughout, why should a particular star occupy the one place and not another?” (Guide 2:19)

A rational natural law would seem to demand a uniform astral distribution, but that is not what we find. Moreover, why do the inner spheres move faster than the outer, which is not what we would expect. All of this must come from the volition of an external particularizer, God, since there could be no better explanation.

I will consider his version of Particularization in more detail in Guide 2:19, but it has the same weakness as the Kalām argument. While it may show that God determines particularities in the universe, it does not prove that He created it from nothing.

The Sixth Argument is the “Argument from Preponderation.” This is the only Kalām version of Particularization specifically directed to creation *ex nihilo*. They asserted that if the world were necessary of existence it would be God, because only God necessarily exists. Therefore, the world is only possible. Its existence is not by nature preferable to its non-existence. There must be an external agent preponderating those chances for existence, and that agent is God.

In response, the philosophers denied that the world could ever be non-existent.

In this argument, the Kalām replaced the term “Particularization,” with “preponderation” (*he-halif teivat miyakhad b’makhrira*). Instead of God “particularizing” the specific possible characteristics of a thing, He “preponderates” its existence over its likelihood of non-existence. In other words, the focus is on the existence of a thing, not on the *states* it assumes (*v’he’khalif matzavi ha-mtziot, b’mtziot ha-mtziot atzma*).

The possibilities we must judge are existence and non-existence: being and nothingness. Unlike the Particularization argument, which was about the found nature of the substance itself, the preponderation argument treats the status of existence *before* it comes to be.

The Aristotelian eternalists could reject this preponderation because they did not accept the alternatives of existence and nonexistence. Aristotle does not seem to entertain a category of absolute non-existence. Being always existed and always will exist. The Aristotelian responds that “non-existence” was just as much a figment of the imagination as any other imagined impossibility (*ki ma sh'anu m'damim hedaro k'mo sh'anu m'damim kol nmtza sh'hu hava*).

What Happened Before the Beginning? Wolfson explains why the Kalām made this change from Particularization to preponderation. Avicenna innovated the use of the term “preponderation” in an interesting argument, ultimately stemming from Parmenides, *for* the eternity of the universe. Let’s assume, for a moment, that the world really is only possible of existence:

“In order to make it necessary for existence to proceed from God or to give preponderance to the procession of existence from Him [over its continuing in its nonexistence] there must inevitably appear a distinction [change] occasioned by the occurrence in the *meantime* of something which did not exist when there was a preponderance of nonexistence [over the procession of existence from Him] and He was in a state of inactivity.” (Avicenna, *Najat* p. 416 II:7-8; in Wolfson *Kalām* , p. 445).

That is, we have to ask what changed in the *meantime* before God could have preponderated the existence of the universe over its non-existence. The moment of creation is a moment of *change*. But Avicenna rejects change in God or in His will. Neither God nor His perfect volition ever changes, because change would be a defect in a perfect being. If there were a moment of creation *ex nihilo*, then God would change from a state of inactivity to activity. We must explain such a change in God. Since there is no reason why this change occurred then and not another time, the world could not have been created “in time.” The emanation of the universe must be eternal.

The Kalām co-opted Avicenna’s argument and linked to it their proposition that no infinite is possible, Proposition XI from the last chapter. (See below, “Kalām Arguments against the Successive Infinite”).

They argued that a preponderator is necessary, who preponderates the chances of existence over the chances of non-existence. This preponderator could not have preponderated itself. This preponderator must be preceded by another, and another, eternally. But this would be, for the Kalām, an impossible infinite regress. Rather, the eternal Divine Will made a choice from eternity to create the world at this particular time, preponderating its existence over its chances of nonexistence.

The Kalām thereby converted Avicenna’s eternalist argument into an argument *for* creation *ex nihilo*. This was precisely the opposite of his conclusion. It was a clever twist, but merely clever. First, it assumed that this chain of preponderators would be an untraversable infinite, which the philosophers would reject. Second, there is no reason why one Preponderator could not preponderate everything, eternally, through the emanations from His perfect being.

Once again, the Kalām equivocate regarding the “possible” by saying that the world is just a possible existence. The Avicennan philosophers would not only deny this, but would urge that there could not have been a “possibility of existence” before anything actually existed. To make such a possibility exist, God would have had to change from a “state of inactivity.” Maimonides succinctly states their position, *arguendo*, in Guide 2:19:

“...the nature of everything remains constant, nothing changes its nature in any way, and such a change is impossible in any existing thing. It would also follow that the Universe is not the result of design, choice, and desire; for if this were the case, they (the design, the choice, and the desire) would have been non-existing before the design had been conceived (implying change in God).”

The world’s “possibility” does not refer to the universe *before* creation, because there is no “before.” It only indicates the world’s relation to God, the “necessary of existence.”

Two Different Kinds of Possibility. There is another way to look at this Fallacy of Equivocation. Maimonides explains that there is a great difference between the “possibility of existence” of ordinary things and the “possible” existence of the universe. Ordinary things could have existed different ways. A lump of copper could end up as either a kettle or a menorah. There is nothing in the prior nature of the metal that compels either result. Either outcome is a chance among possible chances, before a preponderator caused that chance to preponderate over another (*shtei ha-hitkaniyot ha-mityakhasot elav ne'ederot mimenu lifnei hakhra'at ha-makhria*).

But what works for kettles and menorahs will not work for existence itself:

“...this argument is inadmissible; for it cannot be asked who decided in favor of the existence of a thing, and rejected its non-existence, except when it has been *admitted* that it *has* passed from non-existence into existence (*ele l'akher ha-hoda'a sh'hu nmtza akher ha-heder*); in the present case this is just the point under discussion (*lo ytztaer bo clal inyan ze*, i.e., it gets the question).”

In the case of the kettle or the menorah, there is no question of the prior existence of the lump of copper. But where the alternatives are eternity or creation, the assertion that these are equal possibilities, like the kettle or the menorah, commits the fallacy of equivocation. It assumes the possibility of nonbeing, which the Aristotelians rejected.

Maimonides calls this preponderation argument “very persuasive” (Arabic: *mukni'*; Kafiḥ: *msapeket*; Shwarz: *m'shakhneat*) by which he means that it is only a rhetorical argument (Crescas thinks he is being sarcastic, *ad loc.*, 127b; Kafiḥ agrees, *ad loc.*, note 40). But the Kalām only persuaded themselves.

When Maimonides did employ this type of argument, he did not use it in the form of the Sixth Argument from preponderation, but, rather, in the form of the Fifth Argument from Particularization, limited to specific astronomical anomalies. He never considered it to be a deductive proof for creation.

### III. KALĀM ARGUMENTS AGAINST THE SUCCESSIVE INFINITE (Arguments 2 and 7)

Introduction. In the Second and Seventh Arguments, the Kalām applied Proposition XI from the last chapter, which was that an infinite by succession could not exist. The reader should recall that Maimonides demurred, arguing that such an infinite was at least theoretically possible.

The successive infinite refers to a succession of individual beings, succeeding each other over eternity. This succession is not a causal chain.

Aristotle thought that the chain of causes of *motion* in our world must terminate with a mover greater than any one of those causes, or all of them together: the unmoved mover, God. Nonetheless, the Aristotelians eternalists thought that a *succession of accidents* in matter required no inception or termination. No creator was required.

The Kalām, by contrast, hoping to prove that God created the universe from nothing, rejected the existence of a successive infinite. If they were right, the world could not be eternal, and must have been created.

Maimonides recognized the weakness of this argument for God's existence. He knew that the philosophers could easily show that a successive infinite was possible. They could do this by demonstrating that the Kalām failed to distinguish between causal and non-causal infinities (see below).

*The Second Argument* attacked the infinite by succession in the following manner. A succession of individuals begot one another: Isaac begat Jacob who begat Reuven. Since the final individual, Reuven, exists, then there must have been an original progenitor, Adam. Then, by analogy, the universe also had a first father, God.

In Maimonides' reconstruction of the Kalām argument, Adam, having no earthly father, issues from dust, the elemental earth, which comes from elemental water. The elements transform from one to another. According to the Kalām, this elemental transformation could not go on to infinity, since, for them, no infinite was traversable. Since they could not be eternal, the elements and the products of their combinations had to have been created. They could not create themselves, so they must have a Creator. In the same way, the universe must have a Creator. (H. A. Wolfson could find no source for Maimonides' version of their Second Argument; *Kalām* 426. On elemental transformation in the old four-element system, see my account in Guide 1:72, "More Likely.")

Untraversability, Again. The key to the argument was the alleged untraversability of the infinite. The problem was that the philosophers could only accept the untraversability of causal chains.

The untraversability of a causal succession explained, for the Aristotelians, the need for an unmoved mover. But the medieval neo-Platonized Aristotelians, especially Avicenna, also understood God to be the eternal *indirect* cause Who emanates intelligences.

These emanated intelligences themselves emanate forms onto matter. This type of indirect eternal emanation eludes the universally accepted untraversability of a *direct* causal series. It could be a real infinite succession, contrary to the claims of the Kalām.

The idea of the untraversability of an infinite series of causes is both difficult to articulate or understand. It comes from Aristotle (*Physics* 263a:6 and 265a:19-20). The idea was that without a first cause there could be no series of caused effects ending in a specific effect at a certain time. Here is how R. Saadia Gaon put it:

"I find myself existent, [therefore] I know that the process of generation has traversed the whole length of time until it reached me, and that, if it were not for the fact that time is finite [in the past], the process of generation would not have traversed it." (*Emunot v'Deot*, I:1:4, p. 36, Landauer; page 44, Rosenblatt. Wolfson, *Kalām*, 419)

Rabbi Saadia's steps are as follows. All effects have causes and I know I am an effect. Therefore, there must have been a first cause that brought forth all of my preceding causes; otherwise, you could never reach the cause that brought me forth. Herbert A. Davidson called the argument "legerdemain," but it persuaded the many ancient thinkers.

The problem of applying the concept of untraversability to a non-causal successive series was best illustrated by Averroes (*Kashf*, p. 36, II:3-8, quoted in Wolfson, *Kalām* p 425):

"I will not give you this dinar until I have given you before it infinite dinars. In that case it would be never be possible for him to give to that other man the indicated dinar."

In other words, without a first dinar you could never traverse "infinite dinars," and, thus, would never get any dinars. That which has no first cannot arrive at any end (Wolfson, *Kalām*, 416)

Aristotle accepted untraversability only in the case of a true chain of effective direct causes, like the toppling of a row of dominoes. But the case of the gift of the dinar is not a case involving a causal chain, because one dinar did not cause another dinar to exist. In the case of an infinite row of dominoes, the last one would never topple unless somebody pushed a first one, and unless each and every successive domino caused the following domino to fall. In such a chain of causes, the end does imply its beginning.

The philosophers asserted that the succession of human generations was more like the dinars than the dominoes. The end did not imply any beginning.

Potential and Accidental Infinites. There were several types of non-causal series. With the “potential” infinite, for instance, were it not for your mortality you could keep dividing a line indefinitely. That is why it is only a “potentially” infinite division. Another was the so-called “accidental” infinite. This term described the succession of accidents in matter. It could refer to the succession of forms in matter. Both the potential and the accidental infinites are non-causal successions. They could conceivably go on forever because they do not need to be traversed. But the Kalām made no distinction between causal and non-causal successions.

Created, but Eternal. The Islamic conception of time was consistent with their absolute rejection of all infinites. Since the untraversability of any succession would mean that all successions must have beginnings and endings, it followed that just as Allah created the world He will also surely destroy it.

Maimonides opposed this doctrine of the “Judgment Day” (*qayama*), that Allah would destroy the world He created. He held that God created the world, and would never destroy it. God’s work is perfect, and since it is perfect, there could be no reason why it should not endure. (Guide 2:27 – 2:29; Seeskin, *Origin*, chapter 6).

But wouldn’t Maimonides’ position be inconsistent with the principle that a beginning implies its end? Averroes suggests that the logic of untraversability demanded a day of destruction if there was a day of creation. (*Tahafut al Tahafut*, Van Den Bergh, p. 13, 25:8–10, and notes 3-4).

Maimonides’ could reply that the beginning of a non-causative succession did not imply its end. Untraversability did not apply to such successions. What could stop God from creating a perfect world that would persist forever?

The reason why he could elude Averroes’ trap was that, unlike the Kalām, Maimonides never used untraversability to prove creation. Since absolute untraversability was the basis of the Kalām’s Second and Seventh Arguments for creation, the Mutakallimūn were locked into the logic that a beginning implies its end. As Averroes saw, they could never agree that God created a perfect universe.

The Seventh Argument introduces what I call the *argument of numerability*. It is a *reductio ad absurdum* applied to any numerable thing. If the universe were eternal, then an infinite number of substances must have existed to *this* date. *Next* year there will be more. At the end of the next year, that infinite number would be greater than the previous infinite number, which is absurd. Therefore, the universe could not have existed for infinite time and must have been created.

The Kalām used fantastic examples to demonstrate this. An infinite number of souls of the departed existed from eternity up to a particular date. A thousand years later those souls would be more numerous. The second infinite would be larger than the first, an absurdity. Therefore, they could not have existed from infinite time, but only from the creation of the world.

They applied this argument to the rotations of the spheres (in the old geocentric system). The “spheres” of the Sun and Saturn had allegedly rotated the Earth forever. However, while the Sun rotates the Earth only once a day, Saturn’s path takes 30 years (10,755 days). Thus, the infinite number of the Sun’s yearly rotations would be 30 times more than the infinite number of Saturn’s rotations. But the notion that one infinite could be 30 times larger than another infinite is an impossible absurdity. Therefore, those spheres had not existed forever and must have been created. Since they could not have created themselves, God must have created them.

Maimonides says that this argument comes from “one of the moderns” (*he-hadashim*) of the Kalām. Wolfson identifies this individual as Shahrastani (1076 or 1086–1153). He argued that if the universe were eternal, then

the surviving souls of all the departed would exist at the same time. But an infinite number of numerable things cannot exist at the same time (an impossible finite infinite). Therefore, the universe could not be eternal.

Since the existence of these different numerable infinities would be absurd, the Kalām urged that any infinite would be absurd.

Maimonides regards the entire Kalām argument, especially the part about the infinite souls, as “strange” (*derekh mufלאa*). Even their explanations require explanations (*arvekha arva tzarikh*). He attacks it in a variety of ways.

Maimonides’ Arguments against the Case of the Departed Souls. Maimonides raised several questions about the nature of immortal souls, e.g., whether they exist in the way that the Kalām imagine, and how they exist.

First, the philosophers had rejected any kind of corporeality attaching to souls. Since they are incorporeal, taking up no space, there is no reason why an infinity of them could not be together. It was only an infinite number of *corporeal* things that could not exist within the confines of the outer heavenly sphere. But why couldn’t there be an incorporeal infinite, since only corporeals were numerable?

Second, Maimonides and some philosophers could accept the numerability of some incorporeal entities, on the condition that they represented causes and effects of each other. The best example of this was the chain of ten incorporeal hypostases of Avicenna, each of which is the result of its predecessor. But there was no reason to think that the individual souls of Reuven and Shimon were in any sense each other’s causes or effects. The problem of the increased “number” of all the departed souls 1000 years after a given date simply dissolves if those souls are non-numerable.

Third, as we explain more fully below, another group of philosophers thought that it was absolutely impossible for souls to be numerable, even as causes and effects. Maimonides carefully sidesteps this particular debate by arguing that the human mind is incapable of comprehending the nature of surviving souls.

Maimonides hints at another argument the philosophers might have, which Shem Tov articulates (*ad loc.* 128a). Suppose the Kalām succeeded in convincing the philosophers that incorporeal entities were a numerable set. In fact, the philosophers did accept that there was a limit to the number of *forms*. But since the universe was, in their portrayal, eternal, and the quantity of matter infinite, each of those forms must be instantiated in infinite time, and then cycled through again. This is the perennial doctrine of the eternal recurrence, revived modernly by Nietzsche.

Thus, even if the Kalām proved that there could be no eternal infinite of numerable souls, this would not be proof of creation. All it would show is that a finite number of souls recur, one after another, in the uncreated everlasting universe.

Maimonides’ argument against the Sun/Saturn example: Infinities vs. Wholes. Averroes produced the definitive refutation of these arguments. He argued that in all these cases the Kalām confused “infinities” with “wholes.” In the Sun/Saturn problem, the ratio of rotations is 1 to 30 only when we speak of a *finite* number of rotations completed by both, say, in a year. In other words, infinities are not wholes. There can be no such thing as a ratio between two infinite numbers.

The same is true in the case of the infinite dinars. The Kalām treated the infinite number of dinars rhetorically as though it were a *whole* number of dinars. It is impossible to give you infinite dinars, even if we admit that the infinite is a reality, because I can only *give* you something that is a *whole*.

Aristotle explained that a “whole is that which has a beginning and middle and end” (*Physics* III, 6, 207a 7-9), while the infinite, by definition, has no limits. Averroes puts the distinction this way: “The infinite is that which,

however much one has taken, there is always more to take, whereas that of which there is nothing more to take is complete and whole.”

“This” dinar was, thus, a whole, while there is “always more to take” of the “infinite number of dinars,” and so the two could not be compared. The problem dissolves. The same point destroys the Sun/Saturn comparison: ratios only exist between whole numbers, i.e., numbers “of which there is nothing more to take.”

(Averroes, *Tahafut al Tahafut*, Van Den Bergh translation, pp. 9-10, 33:5-7, and p. 10 note 4, quoted in Wolfson, *Kalām*, 431. Maimonides says that this argument comes from Alfarabi’s book, *The Changeable Beings*. Rabbi Narboni, d. 1362, Maimonides’ commentator, said that this book was lost before his time, but that it “undoubtedly” inspired Averroes; see Wolfson *Kalām*, 434).

Does Untraversability Tell Us Anything about Creation? While an infinite number of numerable things cannot exist at the same time, Maimonides agrees with Avicenna that a *potential* infinite or an *accidental* infinite are possible.

Only actual (as opposed to potential) or essential (as opposed to accidental) infinities are untraversable, and each member of those causal chains must be causative, like toppling dominoes. But the succession of accidents in eternal time need not be traversable. The eternalists can thus easily dismiss the Second and the Seventh *Kalām* arguments.

The outcome of this exercise, from Maimonides’ perspective, was that arguments about the untraversability of the infinite could never resolve the debate over creation *ex nihilo*.

Ibn Bājjā’s Doctrine of the Unity of Intellect. Maimonides complains that these fantastic *Kalām* examples are things that exist in imagination, not in reality. They compared no longer existing infinities as though they now exist (*sh’hem monim y’hidei hem ha-ne’edarim u-mdamim k’ilu hem n’mtzaim*). The infinite past rotations of Sun and Saturn only exist in the imagination, because they cannot be cognized intellectually as wholes. Similarly, the set of the infinite souls of the departed only existed in the *Kalām* imagination.

The issue confronting Maimonides was whether souls are numerable at all.

The philosophers replied that numerability always implies corporeal distinction. Material things are numerable, while intelligibles, strictly speaking, are not, except when they are causes. We saw above that in the very limited case of the ten emanated hypostases (angels) Maimonides was prepared to admit to the numerability of incorporeal things.

Maimonides was not entirely clear on this point. He also thought that one soul might differ from another in view of the quantity and quality of its intellectual attainments (Mishneh Torah, *Ysodei ha-Torah* 2:6; Shem Tov to Guide 1:74, p. 128b). On the other hand, in our chapter, Maimonides admitted that Abū Bekr Ibn Bājjā (Latinized: Avempace, d. 1138) may have been right in asserting the unity of intellect.

“The immortal souls are not substances which occupy a locality or a space, and their existence in an infinite number is therefore not impossible. You must bear in mind that those abstract beings which are neither bodies nor forces dwelling in bodies, and which in fact are ideals—are altogether incapable of being represented as a plurality unless some ideals be the cause of the existence of others, and can be distinguished from each other by the specific difference that some are the efficient cause and others the effect: but that which remains of Zaid [after his death] is neither the cause nor the effect of that which is left of Amr, and therefore the souls of all the departed form only one being, as has been explained by Ibn Bekr Ibn Al-Zaig (Ibn Bājjā), and others who ventured to speak on these profound subjects.”

Ibn Bājja's theory that all souls are one was a controversial point for orthodox religion. (This was especially true as developed in Averroes. On the other hand, Rabbi Shem Tov, b. 1461, surprisingly claimed that the proto-Kabalist *Shiur Koma* anticipated the Bajjian theory, *ad loc.*, 128b, line 12; see Moshe Idel's discussion of the *Shiur Koma* in *Kabbalah, New Perspectives*, Yale, 1988, 191-197).

Shlomo Pines argued that Maimonides accepted this doctrine of the unity of intellect. This reads too much into Maimonides' brief remarks. Pines admits that Maimonides "does not wholly commit himself" on the issue (note 11 *ad loc.*, p. 221; and see "Introduction" pp. ciii-civ).

The better interpretation is that Maimonides did not think it was knowable, since our corporeality prevents us from completely comprehending the intellect. The problem of the unity or numerability of souls transcends human understanding.

For that reason, Maimonides says that one should not try to frame arguments based on "such intricate disciplines, which our mind can scarcely comprehend, [and which] cannot furnish any principles for the explanation of other subjects" (*ayn l'kakhat hakdamot mi-kayotze b'davarim halelu ha-amukim—asher t'la'eina ha-makhshavot l'tzairim—k'dei l'baer v'hem inyanim akherim*).

## CONCLUSION

Maimonides concludes his demolition of the Kalām arguments against the eternity of the universe with a deadpan recitation of what they thought they had accomplished:

"These are the principal arguments of the Mutakallemim in seeking to establish the *creatio ex nihilo*. Having thus 'proved' that the Universe is not eternal, they necessarily infer that there is an *Agens* who created it in accordance with His intention, desire and will."

The Mutakallimūn minimized the difficulty of proving creation *ex nihilo*. Had they been able to prove it they would have done a great service for religion, but they could not do so with their threadbare arguments. No one knows how the world came into being. The Kalām thought that by proving creation they had, *Q.E.D.*, demonstrated the existence of a Creator, i.e., the existence of God. Having done so, they thought they could go on to prove that God is one.

Maimonides next surveys their blunderings in the important field of God's divine nature, beginning with the Kalām proofs for divine unity.

Maimonides returns to this debate over creation in Part Two of the Guide, to show what reason can accomplish, even using the Particularization argument, restructured along rational lines.

\* \* \*

All of this may strike the modern reader as odd.

Who now ever hears anyone seriously trying to propound logical proofs for God's existence? The most anyone attempts is to provide reasons for faith, even for that strong faith implied by the Hebrew term *emunah* and the Arabic *i'tiqad* (See my chapter on Guide 1:50). But before Maimonides' time, it was common to see such proofs for the existence of God, as in the works of R. Saadia Gaon and R. Bakhya Ibn Pakuda.

I contend that our chapter ended this theological quest for deductive proofs.

Had there been deductive proofs of God's existence, beyond what Maimonides found among the Kalām and in Aristotle, he would certainly have articulated them, given his stress on the importance of the four necessary doctrines of religion.

The inescapable conclusion, for anyone who does not accept the Kalām proofs or the need for the unmoved mover of the Aristotelian sphere, was that there remains no deductive proof for the existence of God.

Maimonides did his best to destroy the notion that you could use proofs for creation to establish the existence of God. While he clearly thought that Aristotle's proof for the existence of an unmoved mover of the spheres established God's existence, we, who live in the shadow of the Copernican heliocentric revolution, cannot. Even if we did think, post-Copernicus, that there had to be a first mover at the beginning of all motions, this still feels like speculation, not proof.

Maimonides' alternative argument, the sophisticated version of Particularization, based on astronomical anomalies, was, at best, an allegorical argument, not a deductive proof.

The two conclusions link: we cannot prove creation and we cannot prove God's existence.

The corollary, which Maimonides did adopt, is that we must approach these great questions modestly. We still strive to show why we should believe in the four necessary doctrines of religion, i.e., in God, the One Incorporeal Creator. Nonetheless, we recognize that as mortals we cannot perceive the entire truth.

But the Guide's purpose was never to prove the existence of God or of creation *ex nihilo*. Its purpose, as I have argued, was to reestablish prophecy in Israel. The book is a school for prophets. Judaism always linked return to its homeland with the reestablishment of prophecy. The ultimate goal of all Maimonides' writing was the reestablishment of the sovereignty of Temple and Torah in the Promised Land. The renewal of prophecy is a step on that ladder.

The precondition for the reestablishment of prophecy was the education of an elite who could clearly cognize the intelligibles of the divine science, up to and including conjunction with the active intellect.

So while it was crucial to recognize the problematic created by the four doctrines of religion, it was not Maimonides' job to solve those problems. We cannot attain those truths while subject to our corporeal bonds. Only those who reach the highest levels of prophecy, up to and including Moses, who transcended his mortal shell at Sinai, could hope to gain that vision.