

# Axiarchic Polytheism

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**ABSTRACT:** John Leslie has developed a novel type of Platonic theology. Abstract goodness manifests itself in an axiarchic principle: for all  $p$ , if it ought to be the case that  $p$ , then  $p$ . The manifestation of goodness thereby satisfies all axiological demands for existence. According to Leslie, the greatest axiological demand is the demand for a proper class of absolutely infinite divine minds. However, that proposal suffers from fatal mathematical flaws. Proper analysis of the structure of this class shows it to be a hierarchy of increasingly intelligent and powerful divine minds. The universes in these minds form a system for quantified modal logic and counterpart theory.

## 1. Introduction

Axiarchism begins with a Platonic ontology. This ontology divides existence into the abstract and the concrete. Abstract objects include things like mathematical objects, properties, and propositions. Among abstract objects, there are ideals like truth, beauty, and goodness. For Plato, as for Leslie, goodness is *divine activity*: goodness goods. This self-activity of the good is equivalent to an axiarchic principle: for every proposition  $p$ , if it ought to be the case that  $p$ , then  $p$ . Developed in more detail, the axiarchic principle says that for every concretely realizable property  $p$ , if it ought to be the case that some concrete thing realizes  $p$ , then there exists some concrete thing that does realize  $p$ .

Axiarchic ontology, developed out of Platonism, includes a ranking relation that orders all concretely realizable properties according to their worthiness for realization. Any property that is supremely worthy of realization defines an axiologically complete class of supremely worthy concrete things. Following traditional Neoplatonic theory of the divine mind, Leslie says that every concrete thing that is supremely worthy of realization is a *divine mind*. So the World, which is the class of all concrete things, is an axiologically complete class of divine minds. These divine minds are very powerful immaterial rational agents. Now surely it is reasonable to say, along with Swinburne, that “a very powerful non-embodied rational agent” is a *god* (1970: 53). Granted this Swinburnian definition, it seems plausible to say that the divine minds posited by Leslie are gods. Hence the World is populated by an infinite plurality of gods. Axiarchic theology is polytheistic. But the gods of axiarchism do not exist inside universes; on the contrary, universes exist inside of them.

Since the axiarchic gods are minds, they are thinkers; and since they are divine, the contents of their thoughts are existing concrete things. Divine thought produces physical universes. But the gods of axiarchic theology do not create their universes outside of their thoughts. They are Spinozistic deities. Universes supervene on these axiarchic

gods much like software processes supervene on hardware substrates. Axiarchic cosmology says that every god contains some set of universes within its thoughts. The universes in and across these gods form a system for quantified modal logic and counterpart theory. Since the gods that generate these universes are rational and benevolent, axiarchic cosmology entails an attractive soteriology, involving various candidate types of life after death for human animals as well as other living things. The supreme goodness of the totality of gods and their universes implies that the World is, pantheistically, a *divine totality*.

## 2. Platonic Ontology

Over the course of his writings, Leslie develops a Platonic ontology. As a Platonist, Leslie posits a background of logically possible abstract objects. This is the *Abstract Background* (see Leslie, 1970: secs. 6 & 7; 1978: 182, 191; 1993b: 72-73; 1997). The Indispensability Argument can be used to justify this Background (Colyvan, 2001). The Abstract Background exists with an absolute logical necessity: “an infinite realm of logical possibilities has of course to exist, eternally and unconditionally” (2012: 1).

The Abstract Background is ontologically plentiful. Following traditional Platonism, it is reasonable to say that the Background contains at least three types of abstract objects. The first type includes all Platonic ideals like truth, beauty, and goodness. The second type includes all consistently definable mathematical objects. For example, the Background includes the maximal iterative hierarchy of pure sets. And, if there are mathematical objects that are not sets, then it contains those objects too. The third type of abstract object includes all *forms*. Forms are represented by statements in logical languages. Among forms there are the *propositions* (forms with zero open places); the *properties* (forms with one open place); and the *relations* (forms with many open places).

Some forms are realized by abstract objects. Thus the axioms of set theory are realized by the iterative hierarchy of pure sets. And yet, as a Platonist, Leslie also posits some forms which, if they are realized at all, are not realized by abstract objects. These are properties which, if instantiated, are instantiated by things that are not in the Abstract Background. If they are realized, these forms are concretely realized – they are realized by concrete things. Note that concreteness is merely defined negatively as that which is not abstract. At a trivial level, the property *x-is-a-puppy* is concretely realizable. Other properties, like protonicity, personhood, and planetness are also concretely realizable.

The forms of concrete things include the forms of universes. And if the Background is plentiful, then, like the Leibnizian Palace of the Fates (*Theodicy*, secs. 414-417), it includes all consistently definable universe-forms. But these universe-forms are *not* possible universes. Any universes in the domain of modal quantification are concrete things rather than abstract forms. Perhaps these universe-forms include things like the axioms for cellular automata; the axioms for Newtonian mechanics; the axioms for quantum mechanics; the axioms for string theory. Perhaps some of these universe-forms

describe enormous foams composed of enormously many relatively closed physical bubbles.

Unlike purely Pythagorean ontologies, Platonic ontologies permit the existence of concrete objects. Say the *World* is the totality of all concrete objects. The World is the Concrete Foreground over the Abstract Background. Since all the things in the World are concrete, and since those things are characterized by concretely realized properties, the World itself is characterized by some concretely realized property. For convenience, say a *pattern* is any concretely realizable property that characterizes the entire World. The pattern with the least ontological content is *Absence*. Absence states that the World is empty – it is an empty whole corresponding to the empty set (or, if you prefer, it just is the empty set).

Of course, Absence is immediately refuted by the manifest fact that there are some protons and planets and puppies and people, all of which are concrete. Absence is manifestly false. But this begs the old Leibnizian Question (1697): Why is Absence false? Why are there some concrete things rather than none? Why is there something rather than nothing? What is the sufficient reason? Since Absence is false, this means that some pattern with positive concrete content is instantiated by the World. Since there are many positive patterns, some principle is needed to explain why the World instantiates *This Pattern* rather than *That Pattern*. And this raises another old Leibnizian Question: Why is This Pattern instantiated rather than That Pattern? Why is the World the way it is? What is the sufficient reason? Leslie's axiarchism aims to answer these Leibnizian questions.

### 3. Axiarchism

Among the necessarily existing abstract objects, there are objective ideals like truth, beauty, and goodness. Plato said that goodness is creatively effective: an abstract goodness causes This Pattern rather than That Pattern to be instantiated. And perhaps the very selection of This Pattern over That Pattern is creatively effective: it somehow causes This Pattern to be instantiated. Leslie adopts this Platonic creation theory (2012: 1). Leslie's *Axiarchic Hypothesis* says that "the world's existence and detailed nature are products of a directly active ethical necessity" (1970: 286; 1989: 8.4-8.13). But what is this ethical necessity? *Axiarchism* seems to say that for all  $p$ , if it is ethically required that  $p$ , then  $p$ .

Here it is interesting to observe that Leslie's Axiarchic Hypothesis can be linked to recent work in deontic logic. Let  $O$  be the deontic operator "it is obligatory that" or "it ought to be the case that". In Leslian terms,  $O$  means something like "it is ethically required that". Of course, since the scope of these requirements exceeds human actions, it is probably better to analyze  $O$  as "it is *axiologically* required that". Lokhorst (2006: 385) says that in certain systems of deontic logic, the deontic operator  $O$  is defined by introducing a term  $e$  and saying that for any proposition  $p$ ,  $Op$  iff  $(e \Rightarrow p)$ .



existence of something in the World. Goodness *manifests itself* through this deduction. The conclusion of the deduction is therefore a *manifestation* of goodness.<sup>3</sup> Thus:

- |  |                             |
|--|-----------------------------|
| 1. $e$   | Goodness goods.             |
| 2. $e \Leftrightarrow (\forall p)(Op \Rightarrow p)$ | Abundance.                  |
| 3. $(\forall p)(Op \Rightarrow p)$                   | Axiarchism (by 1 and 2).    |
| 4. $O(\exists x)(x \text{ is in the World})$         | Demand for Occupancy.       |
| 5. $(\exists x)(x \text{ is in the World})$          | Manifestation (by 3 and 4). |

Axiarchism only works when supplied with demands. Leslie often seems to endorse some principles of maximality that govern the application of Axiarchism (2001: 6, 135-136, 148-149). Leslie says that the ethical necessity aims at the actuality of the best; he tells us that axiarchism necessarily “demands the existence of as much good as possible” (1979: secs. 11.21-22). He says that “the goodness of a scheme of things cannot reach any upper limit” (2001: 149). Perhaps then it is something like Rescher’s law of optimality. Rescher puts the law of optimality like this: “whatever possibility is for the best is *ipso facto* the possibility that is actualized”(2000: 815; 2000: 814-821; 1984: ch. 2).

Principles of maximality are traditional in metaphysical theology. To apply them, there has to be some total order on patterns. For any patterns  $p$  and  $q$ , say  $p \leq q$  iff  $q$  is at least as worthy of realization as  $p$ . Axiarchism assumes that for any patterns  $p$  and  $q$ , either  $p \leq q$  or  $q \leq p$ . Given this total order, say a pattern  $p$  is *supreme* iff every pattern is less than or equal to  $p$  in worthiness for realization. Note that Absence is the pattern that is least worthy of realization: Absence is strictly less worthy than every other pattern. Since Leslie affirms that goodness demands the realization of the best, it follows that for any pattern  $\phi$ , if  $\phi$  is supreme, then it ought to be realized by the World. Formally:

$$(\forall \phi)(\phi \text{ is supreme} \Rightarrow O(\phi(\text{World}))) \quad \text{Demand.}$$

Axiarchism now requires the abstract existence of at least one supreme pattern in order to produce any significant output. For the axiarchist, *Supremacy* is the assertion that some pattern is supreme. This pattern is represented by the variable  $\delta$ . Granted Supremacy, it is possible to construct a generic *Axiarchic Argument*. To obtain any specific output, this generic argument must be made precise by replacing the variable  $\delta$  with some specific pattern. The generic Axiarchic Argument has the following form:

- |  |                             |
|--|-----------------------------|
| 1. $e$   | Goodness goods.             |
| 2. $e \Leftrightarrow (\forall p)(Op \Rightarrow p)$                           | Abundance.                  |
| 3. $(\forall p)(Op \Rightarrow p)$   | Axiarchism.                 |
| 4. $\delta$ is supreme   | Supremacy.                  |
| 5. $(\forall \phi)(\phi \text{ is supreme} \Rightarrow O(\phi(\text{World})))$ | Demand.                     |
| 6. $O(\delta(\text{World}))$   | By 4 and 5.                 |
| 7. $\delta(\text{World})$  | Manifestation (by 3 and 7). |

For the sake of illustration, suppose there is exactly one supreme pattern, and it contains both and only the nature of the theistic God and the nature of the best of all possible universes (the Best Universe). Now let  $\lambda(x)$  mean that  $x$  contains both and only God and the Best Universe. And let *Leibniz* be the thesis that  $\lambda$  is the one and only supreme pattern. Any axiarchist who accepts Leibniz can run the Axiarchic Argument by replacing the variable  $\delta$  with the specific pattern  $\lambda$ . The result is that the World contains both God and the Best Universe. Both God and the Best Universe are concrete things brought into being by axiarchic principles (see Leslie, 1970: sec. XI; 1978: 7; 1979: sec. 1.8, 1.29, 4.19-21; 1980: 210-212; 1989: ch. 8; 1993b: sec. 5; 2001: ch. 5).

Against this sort of reasoning, it is common to invoke some version of the Argument from Evil. This argument says at least that our universe is not the best and often uses that claim to argue further that the theistic god does not exist. Some writers use the evil in our universe to argue against Leslie's metaphysics (e.g. Mackie, 1982: 234-236; Puccetti, 1993). However, these writers are wrong to use the evil in our universe to refute Leslie's axiarchism. The local evils of our universe merely refute the Leibnizian principle that  $\delta$  is the supreme form. Axiarchism allows many universes to exist (see Leslie, 1989: 8.4, 8.16, 8.22, 8.23). The World may contain an infinitely extended series or infinitely ramified tree of ever-better universes (contra Rescher, 2000: 817-818). And axiarchism allows the positivities in better universes to compensate for the defects in worse universes. Axiarchism even permits the existence of an infinite class of ever-better gods.

## 5. The Divine Minds

Divine minds engage in divine thinking. Leslie says it is plausible that "nothing could be better than divine thinking" (2007: 36; see 2001: 135, 148-149). Hence divine minds are in some sense the best of all possible concrete things. And Leslie confirms this when he says that the divine mind of which we are parts is "supreme in its value" and that its thoughts form "a whole supremely worth experiencing" (2001: 43). He goes on to say that "a divine mind knowing everything worth knowing" is "an existent of a supremely good type" (2001: 6, 184). He affirms that the goodness of divine minds is additive (2001: 149), so that more divine minds are better than fewer. As a result, Leslie tells us that "what exists because of its supreme ethical requiredness" is "a set of infinitely many" divine minds (2001: 168-169; see 1979: ch. 11). Hence "There will be infinitely many [divine minds], for this is best" (2007: 55, 88; see 1993a: 280-281; 1997: 230).

For precision, let  $\pi(x)$  mean that  $x$  contains absolutely infinitely many absolutely infinite divine minds. And let *Leslie* be the thesis that  $\pi$  is the one and only supreme pattern (2001: 154). The result is the following axiarchic argument:

- |  |                 |
|--|-----------------|
| 1. $e$   | Goodness goods. |
| 2. $e \Leftrightarrow (\forall p)(Op \Rightarrow p)$ | Abundance.      |
| 3. $(\forall p)(Op \Rightarrow p)$                   | Axiarchism.     |

- |   |                             |
|---|-----------------------------|
| 4. $\pi$ is supreme   | Leslie.                     |
| 5. $(\forall\phi)(\phi \text{ is supreme} \Rightarrow O(\phi(\text{World})))$ | Demand.                     |
| 6. $O(\pi(\text{World}))$   | By 4 and 5.                 |
| 7. $\pi(\text{World})$  | Manifestation (by 3 and 6). |

Hence the World contains absolutely infinitely many divine minds. It contains as many such minds as there are ordinal numbers in the proper class  $\Omega$ . Since  $\Omega$  is a proper class, it is also necessary to say that the World is also a *proper class*. Unfortunately, Leslie says that the collection of divine minds is a *set* (2001: 168-169). At this point, Leslie has gotten into technical difficulties. Fortunately, these can be remedied. For the sake of maximality, the collection of divine minds is not a set; it is a proper class.

Each divine mind  $x$  in the World knows all the facts in some collection of facts  $K(x)$ . Leslie (2001: 150-154) now considers the following argument: (1) For any divine minds  $x$  and  $y$ , if  $K(x)$  is indiscernible from  $K(y)$ , then  $x$  is indiscernible from  $y$ . (2) For any  $x$  and  $y$ , if  $x$  is indiscernible from  $y$ , then  $x$  is identical to  $y$ . (3) But there are many divine minds. (4) So, every pair of distinct divine minds do not share exactly the same set of known facts. For every divine mind  $x$ , and every distinct divine mind  $y$ ,  $K(x)$  is not  $K(y)$ .

Leslie gives three reasons why there is no divine mind  $x$  such that  $K(x)$  contains all facts. The first reason is based on mathematical worries about the collection of all facts (2001: 30-34). The second reason is that there may be many facts not worth knowing (2001: 34-37). The third reason is that knowledge of all facts may contradict divine mental unity (2001: 37-39). On the basis of these reasons, it seems prudent to say that no divine mind knows all facts. Each divine mind knows some *set* of facts. This set is a proper subclass of any class of all facts. Of course, this set must have some *cardinality*.

Since every divine mind knows some set of facts, and since every set of facts is surpassed by some greater set of facts, it seems reasonable to conclude that any divine mind can be surpassed by some greater divine mind. If that is right, then there are no unsurpassable divine minds. This reasoning can be reinforced by technical considerations. On the basis of our best mathematics, it is easy to show that there are no unsurpassable numbers, sets, computers, languages, games, and strategies. And since all those things are ingredients in minds, it seems absurd to maintain that there are any unsurpassable minds. There are no minds at the level of proper classes. That is, there are no absolutely infinite minds.

All this means that the property  $\pi$  is not consistently definable. Assuming that the Abstract Background contains only consistently definable properties,  $\pi$  does not exist. But if it does not exist, then it cannot be supreme, and it cannot function in any axiarchic argument. From which it follows that the Leslian doctrine that the World contains absolutely infinitely many absolutely infinite divine minds is false. Fortunately, it is easy to save Leslian axiarchism by means of some straightforward friendly modifications.

For the sake of consistency, any theory of divine minds must accept the principle that every divine mind is surpassable by some greater divine mind. And, if it is surpassable,

then axiarchic principles of maximality seem to imply that it is surpassed. The system of divine-mind-forms, like the hierarchy of pure sets, is topless. On this view, no divine mind knows everything worth knowing. Every divine mind knows every fact that is worth knowing for it (that is, at its level of complexity). And the collection of all facts  $K(x)$  known by any divine mind  $x$  forms a well-defined set with a well-defined cardinality.

## 6. The Closure of Demand

Any theory of Demand that aims at the best, or at some maximally excellent or good Concrete Foreground, must be *closed* under improvement: if any pattern  $p$  ought to be realized, then any pattern  $q$  that is at least as good as  $p$  ought to be realized too. This is the principle of axiological *Closure*. A class  $C$  has the property of *axiological completeness* iff for every form  $p$ , if  $p$  is some least worthy form, then there is some  $x$  in  $C$  such that  $p(x)$ ; for every form  $q$ , if  $q$  is more worthy than  $p$ , then there is some  $y$  in  $C$  such that  $q(y)$ . Since the demand for the existence of any axiologically complete class is greater than any demand for any axiologically incomplete class, it follows that any supreme pattern entails axiological completeness. A Leslian can run an axiarchic argument that the World is an axiologically complete class of valuable things. And those things are divine minds.

Following Forrest, let us say that these divine minds are *gods* (2007: 30). Thus axiarchism entails a type of *polytheism*. An axiologically complete class of gods is defined by three axioms. The *initial axiom* says that there are some initial gods – they are minimally worthy of realization. The *successor axiom* depends on the idea of *improvement*. One god is an improvement of another iff the first is a minimally better version of the second. Now the successor axiom looks like this: for every god, for every way to improve that god, there exists some successor god that is defined in that way. The *limit axiom* depends on the concept of a progression of gods. A *progression* of gods is any endless series of ever better gods. A god is an improvement of a progression iff it is minimally better than every god in that progression. Hence the limit axiom says that for every progression of gods, for every way to improve it, there exists a limit god that is improved in that way.

Of course, these axioms are not very precise. To make them more precise, it is necessary to use the Long Line of ordinals. The more precise axioms define *generations* of gods. There is a generation  $D(k)$  of gods for every ordinal  $k$  on the Long Line. Thus:

1. The refined *initial axiom* says that for the initial number 0, there is an initial non-empty generation of gods  $D(0)$ .
2. The refined *successor axiom* says that for every successor number  $n+1$  on the Long Line, for every god in  $D(n)$ , for every way to improve that god, there exists some *successor god* in  $D(n+1)$  that is improved in that way.



3. The refined *limit axiom* says that for every limit number  $L$  on the Long Line, for every progression of gods up to  $L$ , for every way to improve that progression, there exists some *limit god* in  $D(L)$  that is improved in that way.

Generally, if  $n$  is greater than  $m$ , then every god in  $D(n)$  is more worthy of realization than any god in  $D(m)$ . Closure thus entails that if any god in any generation exists, then every god in every greater generation exists. Now let  $\Pi(x)$  mean that  $x$  contains every god defined by these more precise axioms. And let *Polytheism* be the thesis that  $\Pi$  is supreme. Granted the definition of  $\Pi$  and Polytheism, we obtain this axiarchic argument:

- |  |                             |
|--|-----------------------------|
| 1. $e$   | Goodness goods.             |
| 2. $e \Leftrightarrow (\forall p)(Op \Rightarrow p)$                           | Abundance.                  |
| 3. $(\forall p)(Op \Rightarrow p)$   | Axiarchism.                 |
| 4. $\Pi$ is supreme  | Polytheism.                 |
| 5. $(\forall \phi)(\phi \text{ is supreme} \Rightarrow O(\phi(\text{World})))$ | Demand.                     |
| 6. $O(\Pi(\text{World}))$  | By 4 and 5.                 |
| 7. $\Pi(\text{World})$   | Manifestation (by 3 and 6). |

This final axiarchic argument entails that the World contains every god in  $D(n)$  for every  $n$  on the Long Line. Consequently, the World is an axiologically complete hierarchy of divine minds (of gods). Proclus (1992) would probably agree. And since the World is an axiologically complete system of divine minds, it is reasonable to say that the World is divine. Pantheism claims that (1) all existing things are unified and (2) the maximally inclusive unity is divine (see MacIntyre, 1967: 34; Levine, 1994; Oppy, 1997: 320; Steinhart, 2004). A pantheist would identify the World with God. Leslie refers to his own view as pantheism and discusses this identification (2001: 184-185).

## 8. The Grounds of Universes

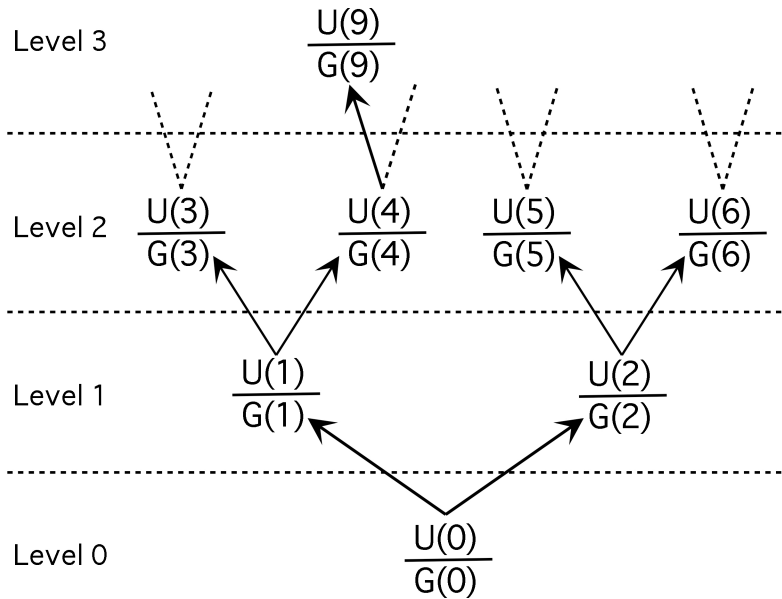
Leslie says that gods think about universes (2001: ch. 1). And he says that at least some gods can and do think about many universes (2001: 18-19, 107). Divine thought about some universe is equivalent to the reality of that universe. All these universes exist within the thought of the gods that think about them. Hence the World contains all gods and all the contents of their thoughts. For any god  $x$ , let  $U(x)$  be the set of universes realized in the thought of that god. Thus  $U$  is the union of the  $U(x)$  for all gods in the World. The set  $U$  is a domain of modal quantification: every possible universe is in  $U$ .<sup>4</sup>

Yet it is not easy to understand the relation between divine minds and the universes they are said to contain. How do they contain them? For Leslie, to be actual is to be the object of divine consciousness (2001: 8, 35-38, 135-136, 147; 2007: 37). And while Leslie often refers to his position as Spinozism, it looks more like classical Berkeleyan or Malebranchian idealism (Armour, 2002). Of course, this old-fashioned idealism now wears new digital clothes: Leslie frequently uses computational analogies to explain his idealism (2001: 9-10, chs. 1 & 2; 2007: 4, 61-62). But why talk about analogies here? There is a large literature in physics and computer science that treats the universe more

literally as a software process running on some computational substrate. And surely one very clear way to understand Spinoza, a way that is motivated by the field-theoretic interpretation of his work, is to think of his deity in computational terms (see Bennett, 1984; Viljanen, 2007). It therefore seems more appropriate to say that these divine minds really are just computers. Of course, they need not be Turing machines. For several decades now, computer scientists have been describing computers infinitely more powerful than Turing machines.

It is also not easy to understand why the divine minds are minds. All known minds are the result of long evolutionary processes, and they seem to have evolved mainly to solve problems associated with sociality. Do these divine minds have emotions? Why? Do they have personalities? Why? Perhaps there are abstract mathematical definitions of intelligence that do not involve any of the psychological aspects of earthly animals (including those of human animals). Perhaps many impersonal computer algorithms are intelligent. Perhaps these divine minds are really only rational agents – they are really only optimizers, seeking to maximize the good. Many algorithms are better chess-players than humans; perhaps many algorithms may be better universe-designers than any traditional gods. But then it seems misleading to call them *minds*. Hugo de Garis coined the term *artilect* for artificial intellects; perhaps Leslian divine minds should be called *cosmolects*. Or, to use a standard theological-metaphysical term that is neutral with respect to intelligence, it is probably better to refer to these divine minds or gods merely as *grounds*.

On this interpretation, the axioms that previously defined gods now define *grounds*. All the forms in all the  $D(n)$  are grounds. It follows that the World is a hierarchy of ever better grounds. Every ground runs some program and thereby generates some universe. And just as software objects supervene on their hardware substrates, so also things in universes supervene on their grounds. The result is an ever better hierarchy of universes. While each ground may support many universes, it seems simpler to say that each ground merely supports one universe. More precisely, it seems appropriate to *define* a universe as a system of software objects supported by some ground. Figure 1 illustrates part of this hierarchy. In Figure 1, each ground is  $G(n)$  and the universe it supports is  $U(n)$ .



**Figure 1.** Part of the hierarchy of grounds and their universes.

## 9. Life After Death

Leslie advocates a four-dimensionalist or “Einsteinian” approach to time and persistence (2001: 112-126). Thus Leslie suggests that we have a kind of Einsteinian immortality: our lives, once thought through by the consciousness of our god, always exist in some sense in the divine memory (2001: 127). Yet Leslie argues that mere preservation of our lives in the four-dimensional structure of the universe is not maximally good. It would be better if our lives were to continue in some way (2001: 127-130). There is an “ethical need for the divine mind to be free *of the ugliness of having people’s lives come to an end*” (2001: 130; italics by Leslie). Here Leslie suggests that only that which is worth preserving in any life continues after its death (2001: 132-133). Hence the more vicious you are, the less of your life continues after death. And Leslie adds that non-human “animals with lives sometimes worth living” may also continue after death (2001: 133).

On the account of continuity after death offered by Leslie, all that is worth continuing in the entire earthly ecosystem seems to continue in some way in the divine mind. All valuable computations persist beyond the destruction of their hardware platforms (2001: 127-128). Of course, there are well-known problems with any account of continuity after death. The first is that such continuity often makes no sense: death often ends a life in the way that checkmate ends a chess game. Just as no chess game continues after checkmate, so no life continues after death. There are problems with age-regression; problems with the correction of bodily defects and diseases; problems with the reconstruction of all the relationships needed for any coherently defined kind of *human* continuity.<sup>5</sup>

Since he describes himself as a Platonist (or Neoplatonist), it is surprising that Leslie does not consider *reincarnation* or *recreation* theories of life after death. After all, Plato presents a reincarnation theory in the *Meno* and in the Myth of Er (*Republic*, 614b-621d), and Plotinus often affirms reincarnation (e.g. *Enneads*, III.2.13, III.4.2, IV.3.23, VI.7.6). Recreation theories differ from reincarnation theories in that there is no mind or thinking soul that passes from life to life. Each next life is a revised version of the previous life. Ben Franklin gives a nice presentation of recreation. For his life after death, he desires at least the same earthly life over again; but he would like even more to live a better version of his earthly life. At the start of his autobiography (1771: 1), he writes

were it offered to my choice, I should have no objection to a repetition of the same life from its beginning, only asking the advantage authors have in a second edition to correct some faults of the first. So would I if I might, besides correcting the faults, change some sinister accidents and events of it for others more favorable.

Recreation (as opposed to reincarnation) is often associated with Theravedic Buddhism (Rahula, 1974). But it finds expression in modern Western thought as well. Kurt Gödel (1961: 429-431) gives the following argument for recreation: (1) Nature is rational. (2) If nature is rational, then every human animal realizes all of its positive potentials. (3) No human animal can realize all its positive potentials in one life. (4) Therefore, we will all have future lives in which more of our positive potentials will be realized. These lives will take place in physical contexts which are appropriate for human animals.

Assuming that rationality itself is a valuable feature of any mind, the axiarchic gods are rational. If that is right, then the conditions for Gödel's argument are satisfied at each god. But this means that the axiarchic model of life after death looks something like the theory of serial recreation developed by John Hick (1976: chs. 15 & 20). Our god knows your life. And our god knows every way to improve your life. Since our god is rational, for every way to make an improved version of your life, our god makes a universe in which your life is improved in that way. Your life is therefore at the root of an endlessly ramified tree of ever better lives (Dilley, 1983). Better lives are lived in better universes. Your future lives are better counterparts of your entire present life (Steinhart, 2008).

## 10. Conclusion

Over the last forty years or so, John Leslie has developed a body of work in axiarchic philosophy that has opened up novel regions of thought for further exploration. Perhaps such exploration is wrong or pointless. Building on themes offered by the New Atheists, Huw Price (2007) offers the following argument against Leslie's axiarchism: Either Leslie is in the same game as science or not. If he is in the same game, then "what's wrong with Leslie's project is simply that he's offering us very bad science" (2007: 143). If he's not in the same game, then his project is worthwhile only if it turns out to be useful for the organization of our lives. Here Price uses Hume to say that all religion is vicious. So either Leslie's axiarchism is foolish or wicked. But do these charges stick?

Consider the charge that Leslie is merely offering bad science. One of the main objectives of Leslian theology is to answer the old question, probably first raised by Leibniz (1697): why there is something rather than nothing? Do scientists try to answer this question? Apparently, they do. The physicist Lawrence Krauss has recently written a book entitled *A Universe from Nothing: Why There is Something Rather than Nothing* (2012). Sadly, as the review by David Albert (2012) makes very plain, Krauss has failed to even understand the question, merely offering us an answer to the question why do quantum fields have particles rather than no particles? The same criticism applies to similar faulty reasoning by the physicist Stenger (2007: ch. 4). The science offered by Leslie is better than the science offered by at least two scientists. One might argue that axiarchic thought is an entirely reasonable way to answer basic questions not well-addressed by science.

Consider the charge that axiarchic thought merely facilitates the wickedness of religion. One may reply to this charge by asking: what religion? The New Atheists have made a powerful case that certain types of religion are genuinely evil (Harris, 2005). Yet *religion* is not equivalent to theo-fascism, to fundamentalism, to Christianity, or even to Abrahamism. Leslie is not a Christian (2012: 10). And his theology is certainly not Abrahamic. On the contrary, it is Platonic. It is perhaps a kind of modernized Neoplatonism. As far as religion goes, any religion based on axiarchic theology is probably best characterized as *pagan*. And many voices have urged that the solution to Abrahamic fundamentalism is not some Godless atheism, but rather a new type of paganism, a neo-paganism. Some forms of this neo-paganism may indeed be Godless forms of *religious naturalism*. And while axiarchic theology may be a polytheism of many gods, it contains no Abrahamic God. Perhaps an *axiarchic religion* will merely perpetuate our human all-too-human failures in new ways. Still, at this point in Western culture, it may be the best hope of escape from the increasingly nihilistic aspects of Abrahamic fundamentalism.

The charges raised by Price do not stick: axiarchic theology is neither foolish nor wicked. Of course, axiarchic theology is not entirely innocent – it has its share of faults. It needs to be systematized and cleaned up. Its mistakes need to be corrected and its vaguenesses need to be clarified. It needs to be more closely linked with rigorous analytic metaphysics. And its practical religious implications need to be worked out. Considering the urgency of the need to develop life-affirming alternatives to Abrahamic nihilism, it must be hoped that its practical religious implications will be worked out.

## Notes

<sup>1</sup>Leslie says that some non-traditional theists may want to use the term “God” to refer to divinely creative goodness (1970: 297; 1978: 193; 1980: 221-223; 1993a: 278; 1993b: 74; 1997: 229; 2001: 179-182). Thus *e* would be God. However, since this God is not a person, this is a deeply misleading use of the term “God”.

<sup>2</sup>The proposition *Goodness goods* has the same form as *Nothingness nothings*. The proposition that Nothingness nothings has been offered as an ultimate explanation for all concrete existence. Nozick puts it like this: “there is something rather than nothing because the nothingness there once was nothinged itself” (1981: 36-37). Of course, the thesis that *Goodness goods* is positive; hence the axiarchic explanation for all concrete existence is diametrically opposed to any explanation that starts with the negation of the negative.

<sup>3</sup>This axiarchic argument explains why there is something rather than nothing. If this is the best explanation, then its premises are justified. And Leslie often does run this inference to the best explanation (e.g. 1989: chs. 6-8).

<sup>4</sup>Since these are really existing universes, and not ersatz universes, presumably there is a counterpart relation that spans these universes. The universes in *U* satisfy the postulates of Lewisian counterpart theory (1968). Thus things at one universe have counterparts at others. Of course, the axiarchic class of possible universes is not the class defined by Lewis. For Lewis, the class of possible universes is plentiful (1986: sec. 1.8). But Leslie is clear that many descriptions or forms of universes are not worthy of realization (2001: 24-30). Since they are not worthy, they are not realized.

<sup>5</sup>It makes little sense to talk about the continuity of any human life without bodily continuity. Does the brain of a person who died of Alzheimers continue? Is this brain altered at every synapse? Or the body of a person who suffered from Williams Syndrome? Is this body altered in every cell at the molecular level? Any coherent account of life after death requires a theory of massive correction and revision. And if we have human bodies of any type, then surely we must live in a system of ecological and physical relations very similar to those of earth. Anything else is sheer fantasy. Such fantasies are easily shown to be vacuous by the fact that they cannot account for the details of human life.

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