

# Evidential Objections to Theism

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Many Christian and Muslim monotheists still endorse the contention of the apostle Paul that unbelievers are “without excuse,” since there would be sufficient evidence in the world for God’s existence and his “invisible nature” (Romans 1: 20). According to contemporary atheists such as me, however, the evidence available today *against* God’s existence vastly overwhelms the alleged evidence *pro*, if there can be evidence at all for such a thing. Therefore, well-informed and intellectually honest human beings should become atheists. The aim of this article is to present some of the main evidential objections to theism. Before doing so, the topic should be defined more precisely. Which god or monotheism are we talking about? How can any evidence be relevant to the question whether the god of theism exists?

## Defining the Topic

During the long (pre) history of humanity, many different gods have been worshipped. As far as we know, all established religions were polytheistic until about the seventh century BCE. The first recorded (quasi-) monotheist was Amenhotep IV or Akhenaten, an Ancient Egyptian pharaoh and religious revolutionary in the fourteenth century BCE. He proclaimed the Sun-god Aten as the sole god of Egypt, but his successors eagerly abolished Atenism again. Ancient passages in the Old Testament also refer to many gods, such as Psalm 82: 1: “God has taken his place in the divine council; in the midst of the gods he holds judgment.” Early Jewish religious creeds were not strictly monotheistic, then, but rather “henotheistic.” This is defined as the belief that many gods exist, only one of whom should be worshipped by the members of the relevant community. In contrast, real monotheisms are religious creeds according to which there is only one god. Monotheists are atheists concerning all gods except one.

This is why in the Roman empire they were considered to be intolerant and dangerous. Monotheists may be called “excepting atheists,” in contradistinction to “universal atheists” such as me, who hold that no god whatsoever exists.

I defined “monotheisms” in the plural, because the unique god a monotheist believes in can be characterized in different ways, which may be mutually incompatible. For example, the philosopher Baruch Spinoza (1632–1677) conceived of *Deus* as an all-embracing deterministic substance with infinitely many attributes, two of which are thought and extension. Since his pan-en-theistic version of monotheism was considered to be incompatible with Judaism and with Christianity, Spinoza has been condemned by both the Talmud Torah congregation of Amsterdam in 1656, and by Christians, as an abominably heretic atheist. In that context, the term “atheist” was used in a third sense, which may be dubbed “particular atheism.” It refers to those who deny explicitly the existence of a specific god.

The variety of monotheism to be discussed in this chapter is called “theism.” According to the standard version of theism, which is common to theistic Judaism, Christianity, and Islam, God exists independently of the material universe we are living in, because he created it. Since this god is considered to be a purely spiritual being without a body, theists cannot teach us to which individual they are referring when using the proper name “God” by pointing to its referent. Consequently, they can fix the reference of the name “God” only by describing the nature of the god they believe in.

If we try to discover, however, who is the god whose existence is endorsed by monotheist believers today, and ask them to describe this god, their answers often are too vague to be informative. So-called negative theologians even claim that God is so different from everything he created that we cannot describe his nature by using any positive predicates of human language. If we would experience somehow the presence of this god, our experiences will be “ineffable.” Unfortunately for believers, it would follow that we can have no idea whatsoever to what or whom the proper name “God” refers, and what it means to say that such a god exists.

In order to avoid the ensuing emptiness of content in this article, I adopt a traditional definition of theism, according to which God is “a person without a body (i.e. a spirit) who ... is eternal, perfectly free, omnipotent, omniscient, perfectly good, and the creator of all things” (Swinburne 2004, p. 7). Furthermore, I shall assume for the sake of argument that most of the predicates that characterize the god of theism are used literally, and not analogously to a large extent, so that we can understand what is meant by this theistic characterization of God (cf. Swinburne 2016).

Having defined “monotheism”, “theism,” and “God,” let us elucidate briefly the notion of evidence. The evidence for or against a specific thesis or theory consists of empirically known facts that render it more or less probable that this thesis is true. If we want to make up our mind conscientiously about the (epistemic) probability that a specific factual claim is true, we should take into account all available evidence *pro* and *contra*. This requirement is often called the *principle of total evidence*. It may be that with regard to a specific claim the total evidence available is insufficient for concluding anything significant about the probability that the thesis is true. If so, further research is needed in order to discover new empirical evidence. In the meantime we should remain agnostic.

My task in this chapter is merely to sum up the main evidence available against theism. In order to make up your mind conscientiously about the probability that theism is true, much more would be needed. For example, one should also present the evidence in favor of theism, if any, and use a sound method for appraising the importance of different pieces of evidence for and against its truth. Furthermore, one should make an inventory of competing explanations of the same evidential items, and try to decide reasonably whether one of these competing explanations is not more probably true, or at least more credible, than theism. Finally, one should try to establish objectively the prior probability of theism (see below). Some training in Bayesian probability theory may be helpful, but I cannot explain here the many technical issues involved (cf. Philipse 2012).

Religious believers often fail to distinguish between the evidence concerning a specific religious belief and the usefulness of holding it. However, these two aspects should be separated sharply. Evidence is related to the truth of a belief or thesis, as defined above. Usefulness regards the mental and other effects of someone's believing something. Psychologists have discovered, for example, that most of us have self-serving biases, which enhance our happiness and self-esteem. Holding specific false beliefs may be useful in the sense that it has positive psychological effects. Endorsing religious beliefs might be salutary in this sense, but it may also be detrimental to oneself or to others. Our topic in this chapter is the evidence relevant to theistic belief, not the usefulness or harmfulness of believing.

## Theism's Prior Probability and Predictive Power

### *Evidential Objection 1: the Argument from Neuroscience*

Having elucidated the notions of God, theism, and evidence, we should wonder how any empirical evidence could be relevant to the truth of theism. This may be the case in two ways. Using the terminology of Bayesianism, we might call them theism's prior probability (or prior, for short), and its predictive power. The predictive power of theism with regard to a specific item of empirical evidence  $e_1$  may be formalized as  $P(e_1 | h \& k)$ , often called the likelihood of hypothesis  $h$  with regard to this piece of evidence. What the formula expresses is how (im)probable ( $P$ ) it is that evidence  $e_1$  would occur if hypothesis  $h$  were true, assuming background knowledge  $k$ . Let me stress that this formula does not imply anything yet about the probability that hypothesis  $h$  itself is true; it merely specifies what the probability of a piece of evidence would be if  $h$  were true. The prior probability of a hypothesis, on the other hand, is symbolized as  $P(h | k)$ , that is, the probability that hypothesis  $h$  is true given background knowledge  $k$ .

In the case of theism, there is crucial empirical evidence against its truth that can better be presented in terms of prior probability than as an instance of low predictive power. For example, the god of theism is defined as "a person without a body," that is, a bodiless spirit, who has impressive mental properties, such as knowing everything that can be known (omniscience). As is shown by an overwhelming amount of recent research in animal biology, psychology, and the neurosciences, however, mental phenomena can exist only on the basis of corresponding neural substrata.

The more advanced the mental powers and performances of a being are, the more complex are the cerebral structures and brain-processes on which they depend. If we damage or destroy these brain-processes, the mental activities are not possible any more.

Given this body of empirical background knowledge  $k$ , the hypothesis of theism has a prior probability  $P(h|k)$  near to zero, since it stipulates that God not only is omniscient but also is a bodiless spirit. As I argued elsewhere, philosophical or religious rejoinders to the effect that neuroscientific evidence cannot be relevant to the truth of theism, since it is concerned merely with features of the created world, are unconvincing (Philipse 012, §§11.5–10). The argument against theism from neuroscience is my first evidential objection to theism. It is a strong objection indeed. If the prior of theism is near to zero, we need an overwhelming amount of evidence in favor of theism in order to justify endorsing it.

### The Dilemma of Theism's Predictive Power

In what follows, I focus mainly on evidence concerning theism that is related to its predictive power. How can we decide which evidence is relevant to the truth of theism in this respect, and how should we determine the values of  $P(e_n|h&k)$  for instances of empirical evidence  $e_n$ ? According to theism (as hypothesis  $h$ ), God is both omniscient and omnipotent. It follows that he can and will achieve everything he intends to achieve. In other words, for each piece of evidence  $e_i$  the value of  $P(e_i|h&k)$  will depend merely on the probability that God intended to cause or create  $e_i$  either directly or indirectly. It is a crucial question how we can determine this probability of God's specific intentions, if at all, since in attempting to answer it we are facing a difficult dilemma.

Either we just assume that God intended to create our world exactly as it is, so that the value of  $P(e_i|h&k)$  for every  $e_i$  equals 1 (the range of possible values of  $P$  being defined as  $0 \leq P \leq 1$ ). If we do so, however, evidential arguments for theism amount to nothing but a verbal *petitio principii* (begging the question). Furthermore, evidential arguments against theism will be impossible by definition, since we derive the content and probability of God's particular intentions merely from our knowledge of what exists in fact. Or, if we want to avoid this first and trivializing option, we have to establish the probabilities that God intended to create specific aspects of the world  $e_i$  on other grounds than the factual existence of these aspects. But how can we have epistemic access to God's intentions independently from the existing world? Alleged divine revelations are notoriously unreliable in this respect (cf. Philipse 2012, §§1.1–1.3).

The standard solution to this problem of predictive power for theism is to refer to God's goodness. According to the theistic conception of God, this divine person is not only perfectly free but also perfectly good, and the term "good" is understood in the sense of morally good. Accordingly, if it is morally good to create at all, God will always decide freely to cause or create the ethically best things possible, or at least very good things if, given an infinite range of ever better possibilities, there is no best thing of a certain kind.

This traditional solution to the problem of theism's predictive power works only if we humans are able to grasp God's criteria for the goodness of his divine actions. One might

object that it is highly unlikely that we humans are able to know and understand the moral norms that hold for God, if there are such norms at all. Since we humans are vulnerable and mortal group animals, the moral norms we know of, and which hold for us humans, serve group cohesion, survival, procreation, and the happiness of finite beings like us. It is very unlikely that God would use this human morality for steering his own actions, since he is an invulnerable, immortal, omniscient, and omnipotent being, who is unique in his kind. If such a god would apply moral norms to himself at all, the content of these norms would differ radically from human ethics.

Nevertheless, theists typically assume that God's perfect goodness means that he is as morally good as possible, and that the norms defining this goodness resemble the norms of human morality to a large extent. More in particular, God would feel and act towards us humans as a perfect father, and love each of us accordingly. For the sake of argument, I shall endorse this anthropomorphic assumption. Without it, theism would lack any predictive power, so that apart from Objection 1 and other factors determining theism's low prior, the evidential issue concerning theism would be a red herring.

Given God's goodness so understood, which empirical phenomena are clearly less likely if theism were true than if no god exists, so that they constitute evidential objections against theism? Let me list some of them in this article. I use the term "naturalism" for the view that no god or other supernatural being exists.

### *Evidential Objection 2: Divine Hiddenness*

If theism were true, and God were like a perfectly loving father, one would expect that he reveals himself unambiguously to each of his "children" – that is, to all human beings – early in their youth, as good fathers do. However, this did not happen in the past, and it does not occur today. As I mentioned at the beginning of this article, monotheism arose quite late in human (pre) history. As far as we know, all early human religions were polytheistic. If we assume that the burial rites practiced by Neanderthals around 100,000 years ago were religiously motivated, we should conclude that these humans were able already to conceive of gods. Nevertheless, as far as we know, there was no revelation of the god of theism to them, nor to any other human being living before some 2,700 years ago. It follows that if the god of theism really exists, he was hiding himself to all humans during at least some 97,300 years. Even theistic believers often complained that God never disclosed himself to them. As we read in Isaiah (45:15), "thou art a God who hidest thyself."

The evidential objection of "divine hiddenness" may be summarized as follows (cf. Schellenberg 2006; 2015a; 2015b). If the perfectly loving god of theism (called God) exists, he will behave as a good father to all of his children, that is, to all human beings. This implies, among other things, that God will reveal himself to all of us early in our youth, as good fathers do, in order to enable us to establish a personal and reciprocal relationship with him. Clearly, no personal relation with God is possible unless one believes that God exists. Since God is omnipotent, he is able to donate belief in his existence to all humans. God will prevent that any human being is ever "non-resistantly in a state of non-belief in relation to the proposition that God exists" (Schellenberg's jargon). But during at least 97,300 years probably there was no human belief that God exists at all. Even now, many open-minded human beings have no inkling that God as

defined by theism exists. From this rampant absence of human belief in God it follows that the perfectly loving god of theism does not exist. Or at least,  $P(\text{absence of belief in God} \mid \text{theism} \& k)$  is very low indeed. The same conclusion would follow already if there were *only one* human being who is non-resistantly in a state of non-belief with regard to God's existence.

The usual label of this evidential objection against theism, "divine hiddenness," is somewhat misleading, since "the weakness of our evidence for God is not a sign that God is hidden; it is a revelation that God does not exist." In other words, "[t]he weakness of evidence for theism ... is itself evidence against it" (Schellenberg (2006, pp. 1–2)). It follows that those agnostics who hold that the empirical evidence *pro* and *contra* God's existence is of equal weight, should conclude that this very assessment "tips the balance in favor of atheism" (Schellenberg 2006, p. 212).

Theistic philosophers have tried to justify God's hiding himself from most human beings. They argue, for instance, that receiving clear evidence that God exists would limit your freedom and moral autonomy. However, their justifications of divine hiddenness are unconvincing, and sometimes morally dubious, such as the argument that absences of theistic belief are due to sinfulness of unbelievers (Schellenberg 2006, Part 2; Philipse 2012: §14.12).

### *Evidential Objection 3. The Argument from Locality*

The evidential objection from locality against theism, also known as the argument from the Demographics of Non-belief, is a special version of the argument from divine hiddenness. It starts from the theistic claim that God is not only omniscient, perfectly good, and omnipotent, but also omnipresent, albeit bodiless. Clearly, if such a god existed and loved every human being, he would make himself known to all humans whenever and wherever they live. In fact, however, all alleged divine revelations occurred at a particular time and place in human history only. As a consequence, each theistic religion had a limited local origin, and its spread has been restricted demographically. Given God's assumed eternal omnipresence, the limited locality of alleged theistic communication with human beings amounts to strong evidence against the truth of theism (Maitzen 2006). A purely secular account of the origin and dissemination of religious beliefs explains their locality much better than theism can do, so that  $P(\text{locality} \mid \text{naturalism} \& k) \gg P(\text{locality} \mid \text{theism} \& k)$ .

The evidential objection of locality may be reinforced by many considerations. For example, if the god of theism exists, it would be blatantly unfair of him to restrict awareness of his presence to a subset of humans only. The very idea of "God's elect" is incompatible with God's alleged perfect goodness. God's unfairness would be even worse if he punishes non-resistant unbelievers during an afterlife for their lack of religious belief, as many Christians and Muslims proclaim. If there is any punishment for unbelief, an equal amount of evidence for theism should be available to each human being, at each epoch.

### *Objection 4. Cosmological Evidence against Theism*

During the history of theism, many different types of cosmological arguments have been developed in order to support belief in God's existence. As I argued elsewhere (Phlipse 2012, Chapter 12), however, the most sophisticated versions of these

arguments are unconvincing. Even more problematic for religious believers is the fact that after cosmology developed into an empirical science during the twentieth century, quickly progressing empirical research revealed more and more aspects of our universe that do not square with the contention that the good god of theism created it. Consequently, there is an increasing amount of cosmological evidence against God's existence. Let me mention a few points only.

First, relative to the immense spatial extension of our ever-more-quickly expanding universe that is about 13.8 billion years old, planetary systems are rare, and planets inhabitable by life occur only in a small subset of these systems. Galaxy clusters are largely empty, and are separated from each other by immense voids. For example, the so-called Giant Void measures about 1.3 billion light years across. If there were an omnipotent god who is like a good father, who shares our moral values, and who had produced a universe primarily as a home for humans created in his image, our universe would have been very different indeed. Such a god would have created the geocentric universe imagined in Genesis and described by Aristotle in his book *On the Heavens*. Surely, God would have abstained from creating useless giant voids.

Second, when the first generation of stars and galaxies was formed in the universe, our carbon-based life could not exist, because there was no carbon yet. Only when early stars more massive than the sun burnt helium and hydrogen into heavier elements, such as carbon and iron, and exploded forming supernova events, the chemical elements needed for the origin of life were dispersed into space. About four billion years after the Big Bang planets started to exist that contained the chemical building blocks necessary for complex life. Surely, the omnipotent good god of theism would have created a universe in which complex life was possible from the very start, and not merely after the first generation of massive stars had exploded.

Third, religious apologists often contend that the first origin of life in our universe would be extremely improbable if there were no god who initiated it. Simple statistics show that this is mistaken, however. In our galaxy, the Milky Way, probably there are at least 100 billion planets. Astrophysicists estimate today that the number of galaxies in the universe is somewhere between 100 and 200 billion. Even if a spontaneous genesis of life on some planet in the universe would be extremely improbable, say the odds are about 100 billion to one against, there would be more than a 100 billion planets on which life would start. Not accidentally, we are living on such a planet (cf. Dawkins 2006, p. 138; I have adapted numbers to recent data).

Fourth, cosmologists now assume that our universe will continue to expand forever. It is not unlikely that a so-called heat death will finally result, which is predicted on the basis of the second law of thermodynamics. When the universe will have reached thermodynamic equilibrium at a very low temperature, no life will be possible any more, since all energy is evenly distributed. Because this state of the universe will last for an infinitely long time, it will persist during a period infinitely longer than the preceding finite period after the Big Bang. Hence, the fraction of time consisting of the period during which life is possible in the universe divided by the infinite time during which life will be impossible, equals zero. The good god of theism would never create such a universe.

One might doubt, I admit, whether the notion of entropy can be applied to the universe as a whole, and conclude on various grounds that this scenario is too speculative

to be considered as evidence. Yet it is not more speculative than the evidence theists typically adduce in favor of theism, such as in the argument from temporal order (Philipse 2012, §§13.1–2).

### *Evidential Objection 5: Evolution*

The empirical evidence against theism discovered by evolutionary biology is even more impressive than the many pieces of cosmological evidence. Before Charles Darwin published *On the Origin of Species* in 1859, the conviction of authors such as William Paley was still dominant in Western culture. In his (1802) *Natural Theology*, Paley argued that in order to explain the well-functioning organisms of living beings, one cannot but assume that there is a divine designer or “watchmaker,” that is, God, who constructed the first specimens of each species on Earth. Darwin’s theory of evolution by blind mutations and natural selection not only eliminated the need for such a theological hypothesis. After its modern synthesis had emerged during the first half of the twentieth century, evolutionary biology developed into an encompassing research program that unifies the life sciences, and also yields overwhelming empirical evidence against theism.

The theory of natural selection assumes that, typically, populations of organisms tend to increase much quicker than their food and other supplies. When populations outgrow their resources, a struggle for existence occurs, during which some heritable traits produced by mutations may turn out to be more fitness-enhancing in the environmental setting than other traits. Some organisms survive whereas many others do not, and some of the surviving organisms procreate whereas many others do not. The diversification of biological species, the increasing complexity of living organisms after the origin of life on earth, and the late evolution of *homo sapiens*, are results of this slow and blind process of mutations and natural selection.

If the omnipotent and omniscient father-god of theism had decided to create humans by this cumbersome procedure, he would have been both wicked and incompetent. For example, more than 99% of the species that ever lived on earth became extinct. Furthermore, after the origin of life on earth it took about four billion years of evolution before *homo sapiens* emerged. Would God really have taken this excessively cruel evolutionary detour if, being an omnipotent good father, he had intended to create humans as his favored children? Clearly,  $P(\text{evolution} \mid \text{naturalism\&k}) \gg P(\text{evolution} \mid \text{theism\&k})$ .

### *Evidential Objection 6: Scientific Progress and Religious Retreat*

Since Andrew Dickson White published his two-volume book *A History of the Warfare of Science with Theology in Christendom* in 1896, historians of science have discussed to what extent the warfare metaphor is appropriate. Religiously inspired historians stressed many positive effects that both Islam and Christianity might have had on scientific progress. What cannot be denied, however, is that during the history of science in Europe from the 16th century onwards, scientific explanations have superseded theological accounts of numerous phenomena in empirical domains, from cosmology to human medicine and biology, because the former are vastly superior to the latter in terms of testable implications and other methodological virtues. As a result, theological



explanations are now considered to be intellectually illegitimate in every scientific or scholarly discipline.

This progressive elimination of religious explanations from empirical science is itself evidence against theism. If the omnipotent god of theism really existed and had created the universe, one would expect that real scientific progress would reveal ever more convincingly that all empirical data can best be explained, ultimately, by the overall hypothesis of theism. The reverse is the true, however, as I argued above with regard to cosmology and biology.

Let me mention just two other instances of scientific progress that caused, or should cause, religious retreat. Apart from Darwin's theory of evolution, the most celebrated case probably is that of Pierre Simon Laplace's improvements on Newtonian mechanics. In the General Scholium of his *Principia*, third book, Isaac Newton had claimed that the structure and stability of the solar system could be explained only by theism, since allegedly it was too improbable that the unidirectional and stable rotations of the planets around the sun were due to random change. Because Laplace explained these phenomena convincingly by recalculating the planetary orbits and by proposing his nebular hypothesis about the origin of the solar system, he could eliminate theism entirely from Newtonian mechanics. According to a famous anecdote, when Napoleon asked him in 1802 why God was not mentioned in his *Exposition du Système du Monde*, Laplace answered: "Sire, je n'ai pas besoin de cette hypothèse" (Your Majesty, I have no need of that hypothesis).

The second instance of scientific progress I'd like to mention is more recent, and is concerned with St. Paul's conversion to Christianity. As is related in Acts 9: 1–9, when Saul was on his way to Damascus, he suddenly and unexpectedly converted from being a prominent persecutor of Jesus's followers to Jesus's most influential apologist. According to the New Testament, this surprising conversion happened because Saul was blinded by a "great light from heaven" (Acts 22: 6–11), fell to the ground, and allegedly heard a voice speaking to him, saying "I am Jesus, whom you are persecuting," after which he remained blind during three days. Saul interpreted what happened to him as a supernatural intervention by the deceased Jesus, that is, as a miracle.

Recently it has been argued that the description of Saul's experience offers "a striking good match" to perceptions by eyewitnesses of asteroid fragments descending through the atmosphere of the earth (Hartmann 2015). Probably, Saul's blindness was caused by intense ultraviolet radiation triggered by such a fireball event. A shockwave produced by an explosion of the meteoroid in the air might explain the fact that "those who journeyed with" Saul "had all fallen to the ground" (Acts 26: 14). Since Saul and his contemporaries lacked scientific expertise about asteroids crashing on earth, they interpreted this extraordinary and disturbing physical event in terms of the religious beliefs available in their cultural context. Of course, the precise content of Saul's interpretation also requires a psychological explanation.

Generalizing from these and countless other examples we might conclude that all instances of particular empirical evidence for theism either do not exist, such as alleged miracles, or can be explained in principle by secular scientific accounts. Formulated in the terminology invented by Henry Drummond during his Lowell Lectures in Boston, 1893, all pieces of alleged empirical evidence *in favor* of theism boil down to "gaps" in our scientific knowledge, which believers "will fill up with God." The gradual

elimination of theistic explanations during the last centuries of scientific progress, that is, of these “God-of-the-gaps” accounts of empirical phenomena, is itself strong empirical evidence against God’s existence.

### *Evidential Objection 7: The Existence of Gratuitous Evil*

The most traditional evidential objection against theism refers to the existence of evil on Earth. Surely, the omnipotent, omniscient, and perfectly good god of theism would not create or allow any evil in the universe, or at most merely evils that are indispensable means to greater goods. It is or seems to be obvious, however, that many evils in the past and present are not indispensable means to greater goods. Hence, they amount to empirical evidence against God’s existence.

The philosophical literature on the problem of evil is voluminous, and the issue has both an evidential and a normative dimension. Since Stephen Maitzen discusses moral evils in his article on “Normative Objections to Theism” (Chapter 14 of this volume) I zero in on natural evils only. Let me explain. The term “evil” is used here in a broad sense, and is not restricted to moral wrongdoings. It refers to everything we consider to be bad or harmful, such as animal suffering or human diseases. Types of evil may be classified in various ways, and the taxonomies overlap. For example, one might distinguish between (i) things in the world that are bad only if God exists, and (ii) things that are bad whether he exists or not. Divine hiddenness (Objection 2) is an instance of (i); I focus here on (ii).

One should also differentiate between (m) moral evils, that is, bad things brought about by free and intentional human actions or due to culpable negligence, including these actions and instances of negligence themselves, and (n) natural evils, such as the suffering caused by predators, parasites, or natural disasters. As said, I concentrate on natural evils. Finally, one should distinguish between (x) logical arguments from evil against theism, according to which there is a hidden contradiction between theism and the factual claim that there are specific evils in the world, and (y) evidential arguments, which are our topic here. Evidential arguments from evil aim at showing that both for many individual instances of evil<sub>1-n</sub>, for particular kinds of evil, and for the sum of all these instances and kinds,  $P(\text{evil} \mid \text{naturalism} \& k) \gg P(\text{evil} \mid \text{theism} \& k)$ .

In a well-known article (1979), William Rowe described some instances of suffering that clearly are not indispensable means to higher goods. For example, “[i]n some distant forest lightning strikes a dead tree, resulting in a forest fire. In the fire a fawn is trapped, horribly burned, and lies in terrible agony for several days before death relieves its suffering” (Rowe (1979, p. 337)). Because the omnipotent god of theism could easily have prevented this suffering, whereas in all probability it neither is a means to some higher good nor needed to prevent a greater evil, such a fact constitutes empirical evidence against theism. Since there are innumerable instances of gratuitous evil, they amount to strong evidence against God’s existence.

Let me mention the occurrence of mass extinctions on Earth, during which biodiversity decreased rapidly. The omnipotent deity whom theists believe in could easily have prevented the Cretaceous–Paleogene extinction event, for example, because it was caused by an asteroid impact about 66 million years ago. God merely had to divert from earth the trajectory of this asteroid or comet. Theists might object that although this

excessively evil event caused immense suffering, and extinguished about three-quarters of all animal species on earth such as the non-avian dinosaurs, it was a precondition for the greater good of the evolution of humans and other mammals, so that it was not gratuitous or pointless. The obvious rejoinder is, of course, that a benevolent and omnipotent god would not have decided to create humans by this excessively cruel evolutionary detour.

A better counter-argument against the evidential objection from gratuitous natural evil stresses the abyss between our limited cognitive capacities and God's omniscience. Even if we humans cannot discover for which higher goods the many instances of evil on earth are necessary means, it does not follow that these evils are gratuitous. Surely, the omniscient god of theism would permit them only if they are unavoidable means to greater goods?

However, this reply by "skeptical theists" has two serious drawbacks. First, if we humans cannot fathom God's intentions, theism has no predictive power. It follows that we should make up our minds about the probability that theism is true merely on the basis of its low prior (cf. Evidential Objection 1). Second, one would expect that a perfectly good father-god would reveal his reasons for causing or permitting so much suffering on earth in order to console us, but God does not do so (cf. Evidential Objection 2). The story of the Fall is unconvincing as an exculpatory explanation for this divine silence. Since the various theodicy arguments of theists are either irrelevant or unconvincing with regard to natural evils, the occurrence of natural evil amounts to strong evidence against theism.

### Closing Considerations

As I indicated, polytheistic religions preceded monotheist ones whenever the latter arose in a particular area. This fact of cultural history not only supports evidential objections 2 and 3. It also raises an explanatory paradox for theists today.

Because theists are atheists concerning all gods apart from God, they may endorse a purely secular explanation of polytheistic beliefs. With regard to their own monotheist convictions, however, theists cannot but reject such a secular account. They hold these beliefs to be true, and think that they are warranted somehow. What justifies this explanatory divergence? Can theists argue convincingly that their religious belief is more likely to be true than polytheistic convictions or competing monotheisms, in order to justify their atheism-with-one-exception? I think that the best attempts to do so fail (cf. Philipse 2012). Let me sketch a purely secular explanation of all religious beliefs in human cultures, including those of theism. Since this secular explanation of theistic beliefs will turn out to be superior to the religious explanation by theism itself, it constitutes additional evidence against theism.

In cultural history, monotheist creeds developed often via henotheistic intervals out of polytheistic religions. Consequently, religious scholars have to raise and answer two explanatory questions. First, how should we explain the origin and spread of polytheistic beliefs? Second, what accounts for the transition from polytheisms to monotheistic religions such as theism?

With regard to the first question, results of diverse scientific disciplines are of relevance. Psychological research reveals that children tend to interpret many natural phenomena as somehow intended or intentional. Since this inclination exists in very young children, it is plausible to suppose that it is an innate disposition, the genesis of which requires an evolutionary explanation. Let me mention, for example, the hypothesis that early humans evolved a “Hyperactive Agent Detection Device” (HADD), which enabled our evolutionary ancestors in the African jungle to escape from predators. Clearly, such a mental device was more fitness-enhancing if it was hypersensitive than if its sensitivity had been insufficient. Because a hypersensitive device evolved, it may have triggered the fantasy of non-existing predators such as evil gods. The origin of human beliefs in gods will have had other causes as well. Once invented, these god-ideas acquired diverse psychological and social functions, such as invigorating tribal cohesion by religious rituals.

In order to account for the cultural transition from polytheisms to theism, I propose an amended Humean hypothesis (Philipse 2016). Writing in 1757, David Hume explained the genesis of theism by supposing that in the course of time humans flattered their gods ever more, out of fear and distress. As a consequence, they attributed to their gods increasingly perfect properties. This went on until they arrived at the logical limit of infinity or omni-attributes such as omniscience, “beyond which there is no farther progress” (Hume 1976, p. 52)). Since there can be only one god who is omnipotent, this cultural process ultimately led to monotheism. My amendment to Hume consists in the assumption that the contest of flattering gods occurred primarily in situations of war. Typically, people assumed that the probability of winning a battle increased to the extent that their gods were more powerful than the gods of the enemy.

There are many confirmations of this hypothesis. For example, according to Deuteronomy 7: 1–2, God ordered the people of Israel to “utterly destroy” the seven nations that resided in promised land, “and show no mercy to them.” Since God was considered to be more powerful than the divinities of these nations, the Jewish tribe could vanquish them, although the enemies were much more numerous. Another confirmation consists in Constantine’s conversion to Christianity before the battle of the Pons Milvius in AD 312, during which he defeated the much larger army of Maxentius. Clearly, the Christian God is more powerful than Mars, whom Maxentius invoked, so that the conversion to Christianity may have convinced Constantine’s troops that they could win the battle. The resulting self-confidence will have contributed to their victory.

These and many similar facts concerning the rise of theism in human history are explained by my secular account. If theism were true, however, they would be mysterious anomalies. If he really existed, the infinitely good god of theism would never have ordered anyone to “utterly destroy” other people, or to inspire a war on his behalf, or to “elect” only one human tribe. For this reason, a secular account of all religions including theism is vastly superior to a theistic account of theism. This constitutes further evidence against the truth of theism.

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### Further Reading

- Martin, M., and Monnier, R. (eds.) (2006) *The Improbability of God*. Amherst, NY: Prometheus Books – a good overview of evidential arguments against the existence of God.
- Sober, E. (2008) *Evidence and Evolution: The Logic behind the Science*. Cambridge: Cambridge University Press – an excellent analysis of the concept of evidence and its application to intelligent design and evolutionary theory.
- Howson, C. (2011) *Objecting to God*. Cambridge: Cambridge University Press – a provocative analysis of evidence that has recently been claimed to support theism, including the alleged fine-tuning of our universe for life.
- Everitt, N. (2004) *The Non-Existence of God*. London: Routledge – a comprehensive critical assessment of arguments *pro* and *contra* theism.
- Oppy, G. (2006) *Arguing about Gods*. Cambridge: Cambridge University Press – a critical evaluation of arguments about orthodoxly conceived monotheistic gods.